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FORENSIC LAW

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I INTRODUCTION

CORROBORATION IS essential to establish probity of evidence during trial proceedings for ensuring justice. Forensic inputs in furtherance of scientific approach brace the purpose of investigation. The physical evidence used for corroboration, if collected, preserved and analysed meticulously, is largely immune to external pressure, personal grudges, faded memories and hostility. Forensic aids to investigation need professional outlook and scientific temper of an investigator since ‘what the mind knows, the eyes will detect’. Indian legal lexicon, especially procedural laws, since inception, has recognized the power of expert opinion in administration of justice. However, different forensic techniques such as the DNA (deoxyribo nucleic acid) profiling and voice spectroscopy though frequently used in court room are yet to be formally recognized under the books of statutes. Intertwined concepts of consent of the subject for tendering biological samples for the purpose of forensic analysis and comparison and protection against testimonial compulsion are few grey areas which need detailed legal deliberation.

The present survey is an analytical account of various judicial pronouncements by the constitutional courts of India during 2018 under the unfolding legal trends on forensic evidence while adjudicating cases of both criminal and civil nature. The survey discusses nearly seventy judicial pronouncements wherein various legal issues related to forensic evidence have been addressed. Such issues of evidentiary consequence include DNA Profiling, voice spectroscopy, consent for giving biological samples in conjunction to right to privacy, virtopsy, abortion of rape induced foetus, age determination, forensic frauds *etc.*

In *Sheila Sebastian v. R. Jawaharaj*,¹ the apex court has outlined the role of investigator, prosecution and the court. The Supreme Court observed, “Investigating officer is expected to be diligent while discharging his duties. He has to be fair, transparent and his only endeavour should be to find out the truth... It is the duty of

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1 (2018) 7 SCC 581: 2018 SCC OnLine SC 522: (2018) 3 SCC (Cri) 275.

investigating officer, prosecution as well as courts, to ensure that full and material facts and evidence are brought on records, so that there is no scope for miscarriage of justice.”²

In the recent past, the apex court has delivered judgements in two public interests litigations (PIL) filed by K.S. Puttaswamy, J.(Retd.) which are of immense consequence for police functioning in general and for forensic sampling in particular. In 2017, the apex court in the right to privacy case³ further widened the scope of article 21 of the Indian Constitution by holding that privacy is an integral component of the right to life with dignity. This interpretational expansion of the fundamental rights has overt bearing on policing, which has already been dealt in last year’s annual survey.⁴ The Supreme Court in the *Aadhar* case⁵ has further dealt with plethora of legal issues pertaining to right to informational privacy and emphasized upon legal protection since an individual cannot be left to an unregulated market place. These judgements have imperative consequences on the forensic sampling since DNA and other biological and digital/cellular samples store invaluable personal information. Possession of these samples or information without obtaining wilful, informed and competent consent of the subject, may potentially affect personal life of an individual amounting to violation of personal liberty.

Worldwide, DNA has emerged as gold standard evidence in courtrooms. Many a times, forensic evidence particularly DNA assist the court in reaching to decisive conclusion especially where oral testimony suffers from stark contradictions. In *Mahender @ Ganja v. State (NCT of Delhi)*⁶ a 51 year old Danish woman was gang raped. High Court of Delhi accentuated the significance of DNA in rape incidents by observing that “... This [DNA] by itself conclusively proves not only the presence of the accused at the scene of crime but their involvement in the commission of gang rape on the victim”.⁷ In yet another rape case with a minor prosecutrix, the same high court based on positive DNA report upheld the conviction and observed, “The mere absence of injury marks would not give rise to any inference about the rape not having happened. This is particularly so when fear of life may have been put into victim’s mind due to disorientation caused by sudden attack. It is not hard to imagine her plight in those circumstances.”⁸ The legal precepts related to privacy and various other domains and intricacies of significance in the field of forensics shall be dealt with in the subsequent sections of this survey.

II CIVIL DISPUTE RESOLUTION

Forensic inputs like serology and DNA tests, fingerprints, handwriting and signatures etc. have played pivotal role in resolving civil matters in the courtrooms.

2 *Id.* at para 29.

3 *Justice K.S. Puttaswamy (Retd.) v. Union of India* (2017) 10 SCC 1.

4 G.K. Goswami, “Forensic Law” LIII : 2017 *ASIL* 385 (2019).

5 *Justice K.S. Puttaswamy (Retd.) v. Union of India* (2019) 1 SCC 1:2018 SCC Online SC 1642.

6 2018 SCC OnLine Del 8438 : (2018) 250 DLT (CN) 2 (DB) 2.

7 *Id.* at para 36.

8 *Manoj v. State (NCT of Delhi)* 2018 SCC OnLine Del 8834 at para 33.

Role of DNA in parentage determination has gained global recognition. In 2018, various issues of forensic significance in civil matters were dealt by the higher courts, which are elaborated below.

Paternity determination

Paternity determination for various reasons remain a legal challenge since ages because disclosure of parentage is essential component for self-determination, for knowing one's genetic roots and for succession rights. Dispute regarding child's paternity is one of the major causes for marital discord and ground for contesting divorce suits. Section 112 of the Indian Evidence Act, 1872 postulates "Birth during marriage, conclusive proof of legitimacy". The presumption of legitimacy hinges upon the Latin Maxim '*pater est quem nuptiae demonstrat*' meaning 'he is the father whom the marriage indicate'. In fact section 112 presumes morality in sexual conduct of a married woman, consequently a child born within lawful wedlock become legitimate. In the eyes of paternity law, both socio-legal father (*pater*) and biological father (*genitor*) are the same person *i.e.*, the husband but in real life the pater and genitor may be different identities. DNA explores genetic composition of a child and thus determines only genitor. In real world, legal conundrum arises when paternity of a child born within lawful wedlock is challenged and DNA identifies genitor other than the *pater*, consequently the child becomes 'fatherless', adversely affecting the best interest of a child. Advent of surrogacy under assisted reproduction technology (ARTs) has further complicated the process of parentage determination. In fact, maternity determination is still unknown under the Indian legal statutes, which deserves attention of higher judiciary and the law makers. The courts are overburdened, since parties to the dispute (*lis*) for their convenience frequently demand either for DNA test or challenge order of the court for conducting DNA since law is ambiguous. Several legal issues related to paternity were dealt during 2018 by the constitutional courts which have been briefly discussed below.

In *Pratima Das alias Arati Das v. Subudh Das*⁹ the apex court directed both parties to face DNA test in a maintenance case filed by the aggrieved wife. Based on the strength of matching DNA report proving the respondent being the father of the children born to the petitioner wife, the apex court set aside the order of the High Court of Guwahati. Earlier the high court set aside the order of the lower court for allowing maintenance to wife on the ground that she failed to prove that she was the wife of respondent. In yet another case of marital discord, the trial court order for permitting DNA test to determine paternity of a child was challenged before the High Court of Himachal Pradesh.¹⁰ After discussing several celebrated judgements of the apex court on the subject,¹¹ the high court allowed for DNA test by observing that "having children is a strong indication of relationship in the nature of marriage and

9 (2018) 4 SCC 528.

10 *Bishamber Singh v. Raj Kumari* 2018 SCC OnLine HP 1823.

11 *Bhabani Prasad Jena v. Convenor Secretary, Orissa State Commission for Women* (2010) 8 SCC 633; *Nandlal Wasudeo Badwaik v. Lata Nandlal Badwaik* (2014) 2 SCC 576; *Deepanwita Roy v. Ronobroto Roy* (2015) 1 SCC 365.

would be a strong indicator to establish that the parties intended to have long standing relationship sharing the responsibility for bringing up and supporting the children".¹²

In this case of maintenance,¹³ for ordering DNA test to find the truth, the High Court of Himachal Pradesh has observed that, "... the parties are not totally strangers, ... no prejudice would be caused to the petitioner if he is directed to undergo DNA test. After all, only the truth will come out from such test and it has to be remembered that every trial is a voyage of discovery in which the truth is the quest. It is, therefore, the duty of the Court to ensure that the truth in a case comes out. The truth is the basis of justice delivery system and therefore, should be the guiding star in the entire judicial process. The Court's serious endeavour has to be to find out where in fact the truth lies."

In a revision petition related to the property inheritance dispute, High Court of Patna rejected the plea to conduct DNA test since opposite party had sufficiently proved his claim and revision petitioner has demanded DNA probe at very advanced stage of court proceedings.¹⁴ In *DN Mangala v. Sunanda*,¹⁵ the petitioner challenged before High Court of Karnataka the order of the trial court for not permitting DNA test to establish lineage in a property dispute.

During annual surveys, the author has observed that legal conundrum on paternity determination is recurrent phenomenon since courts either rely upon the provisions under section 112 or permit for DNA test which may indicate third party intervention in procreation. The constitutional courts are banking upon the DNA for "Truth must triumph" is the hall mark of justice".¹⁶ Unwarranted conflict between law and technology creates legal inconsistencies in paternity determination, indicating the dire need to refurbish these archaic laws of colonial period.

Demand for second (repeat) DNA test

Many times demand for repetition of a forensic test is raised before the court if expert opinion is contrary to the interest of disgruntled party to the *lis*. The High Court of Madras in *Pandya Hashmukhbhai Ambalal v. Pandya Sharmistha Hashmukhbhai*¹⁷ has culled out guidelines for repeat DNA test.¹⁸ In a case of revision before the High Court of Madras,¹⁹ the second DNA test was requested by the petitioner alleging that the blood samples collected for paternity determination were manipulated. The magistrate had turned down the plea since DNA samples were extracted in presence of the advocate commissioner appointed by the lower court. The high court rejected the petition. In order to avoid unnecessary doubts in the minds of the parties, it may

12 *Supra* note 10, para 12.

13 *Ibid.*

14 *Nirmla Devi v. Naresh Kumar alias Arunesh Kumar* MANU/DE/4151/2018.

15 2018 SCC OnLine Kar 1033 : ILR 2018 Kar 2022 : (2018) 2 KCCR 1137 : (2018) 4 Kant LJ 184 : (2018) 2 AIR Kant R 442 : (2018) 3 ICC 208.

16 *Nandlal Wasudeo Badwaik v. Lata Nandlal Badwaik* (2014) 2 SCC 576.

17 138 2015(2) MLJ (CrI) 39.

18 G.K. Goswami, "Forensic Law" LI : 2015 *ASIL* 623 (2016). Also see: *Veeralakshmi v. The Superintendent of Police* 2015 MHC 1353; *Sakthivel v. Karpagam* (2005) 3 MLJ 483.

19 *K. Perumal v. S. Shakiladevi* 2018 SCC OnLine Mad 10140.

be prudent to collect the blood samples of the parties in presence of each party in addition to two independent witnesses; the sampling process may also be video-recorded at the cost of the parties.

III ADJUDICATION OF CRIME

Issues of consent and privacy

Consent emanates from the doctrine of privacy which has recently been declared as integral component of the right to life, a fundamental right.²⁰ Right to privacy must fulfil the three limbs test of proportionality: (a) backed by law, (b) legitimate aim, and (c) proportionality.²¹ The apex court in the '*Aadhar* case'²² has dealt with various aspect of informational privacy. Informational privacy deals with the person's mind and personal information and it includes the right to control dissemination of personal information and protection from unauthorised use such as profiling of individual by data mining and metadata. The brief account of the foreign courts judgements referred by the Indian apex court is mentioned below.

In *S and Marper*,²³ the storing of DNA profiles and cellular sample of any person arrested in the United Kingdom was challenged before the European Court of Human Rights (ECHR). A bench of 17 judges held that Fingerprints, DNA profiles and cellular samples constitute personal data and their retention was capable of affecting private life of an individual. Retention of such data without consent, thus, constitutes violation of article 8 since these are capable of identifying the individuals. The court held that invasion of privacy was not necessary in a democratic society as neither did it fulfil any pressing social need nor strike a balance between private and public interests. The court observed, "Fingerprints objectively contain unique information about the individual concerned allowing his or her identification with precision in a wide range of circumstances. They are thus capable of affecting his or her private life and retention of this information without the consent of the individual concerned cannot be regarded as neutral or insignificant."²⁴

Similarly, in the *Digital Ireland* case,²⁵ the Court of Justice of European Union (CJEU) declared the directive²⁶ invalid on various grounds such as absence of time limit of data retention and lack of objective criterion, substantive and procedural conditions to determine the limits of access of the competent national authorities to

20 *Supra* 4 at 384.

21 *Supra* 3 at para 232.

22 *Supra* 5.

23 [2008] ECHR 1581.

24 *Id.* at para 84.

25 *Digital Rights Ireland Ltd. v. Minister for Communication, Marine and Natural Resources* [2014] All ER (D) 66 (Apr).

26 The European Parliament and the Council of the European Union adopted 2006/24/EC (Directive), which regulated Internet Service Providers storage of telecommunications data, which could be used to retain data that was generated or processed in connection with the provision of publicly available electronic communications services or of public communications network, for the purpose of fighting serious crime in the European Union. The data included data necessary to trace and identify the source of communication and its destination, to identify the date, time duration, type of communication, IP address, telephone number and other fields.

the data. The ECHR in *Szabo and Vissy v. Hungary*²⁷ examined the legality of the Hungarian legislation on secret anti-terrorist surveillance introduced in 2011. The court held unanimously that there had been a violation of article 8 (right to respect for private and family life, the home and correspondence) of the European Convention on Human Rights since legislation in question did not have sufficient safeguards to avoid abuse.

The Supreme Court of India observed that “Thus, it is evident from various case laws cited above, that data collection, usage and storage (including biometric data) in Europe requires adherence to the principles of consent, purpose and storage limitation, data differentiation, data exception, data minimization, substantive and procedural fairness and safeguards, transparency, data protection and security. Only by such strict observance of the above principles can the State successfully discharge the burden of proportionality while affecting the privacy rights of its citizens.”²⁸

During court proceedings issue of “veillant panoptic assemblage” was addressed alleging that data gathered through the ordinary citizens’ veillance practices finds its way to state surveillance mechanisms, through the corporations that hold that data. The Aadhar requires four types of information: (i) Mandatory demographic information comprising name, date of birth, address and gender (ii) Optional demographic information, (iii) Non-core biometric information comprising, face photograph, and (iv) Core biometric information comprising of fingerprints and iris scan. Face photograph, fingerprint and iris scan are non-invasive mode of identification and have no reasonable expectation of privacy as they are not dealing the intimate or private sphere of the individual but solely used for authentication. Fingerprint and iris scan are considered to be the most accurate mode of identifying an individual.

Privacy and proportionality are two interlocking themes and the court attempts to strike a balance between safeguarding public order and the right to privacy. Verification logs of Aadhar are capable of profiling an individual, and the court observed, “The threat to privacy arises not from the positive identification that biometrics provide, but the ability of third parties to access this in an identifiable form and link it to other information, resulting in secondary use of that information without the consent of the data subject. This erodes the personal control of an individual over the uses of his or her information. The unauthorised secondary use of biometric data is perhaps the greatest risk that biometric technology poses to informational privacy.” The apex court kept on observing:²⁹

As biometric data can be usually linked to only one individual it acts as a powerful, unique identifier that brings together disparate pieces of personal information about an individual. As a relatively unique identifier, biometric data not only allows individuals to be tracked, but it also creates the potential for the collection of an individuals information and its incorporation into a comprehensive profile.

27 Eur. Ct. H.R. 2016.

28 *Supra* 5 at para 187.

29 *Id.*, para 239.

Procedural probity of forensic samples

Procedural integrity of samples is the hallmark for fostering trust of the judiciary on the expert opinion. For maintaining integrity of sample at every stage from the identification to diagnostic laboratory needs utmost professionalism and training. Many times, due to procedural lapses caused as a result of lackadaisical approach of first responder to crime scene, the expert opinion becomes futile resulting in miscarriage of justice. Several such instances have been observed during the extant survey.

The appeal against the conviction order for murder of his father was allowed by the High Court of Delhi despite matching DNA of the blood spots on the clothes of the accused of a murder case with the blood of the deceased father besides other corroborative evidence.³⁰ In appeal doubts were raised on the recovery of blood stained shirt of the accused in addition to the missing element of motive of the crime from the prosecution story

Order for DNA Test

Many times, persons accused of rape challenge the court order of undergoing DNA test especially on accounts of literal interpretation of the provisions under section 53A of Cr PC. In an appeal against order for DNA test the high court observed:³¹

A person released on bail is still considered to be detained in the constructive custody of the Court through his surety. He is notionally in the custody of the Court and hence continues to be a person arrested. In spite of the fact that the accused person has been released on bail, he continues to be a person arrested on charge of commission of an offence and, therefore, his medical examination can be carried out. In other words, the release of an arrested person on bail or a person who has obtained anticipatory bail surrenders before the Court, cannot take away the reality of the situation and he does not cease to be an arrested person or an accused person for the purpose of Section 53 and 53A of the Code of Criminal Procedure.

DNA acts as a deterrent to lies. The court ordered DNA test to know the paternity of a girl child, fraudulently shown in school records as the daughter of the brother of the accused in order to save his candidature for the membership of the Gram Panchayat, as he was disqualified for having more than two children.³² Initially both brothers were part of conspiracy but once the DNA test was ordered, both disclosed the truth even before facing DNA test. The high court upheld the lower court order for imposing fine of rupees five lakhs.

Human identification

Since ages human identification remained a great challenge for adjudicating in both civil and criminal matters. Identification of dead bodies and the accused persons in addition to resolving parentage disputes, linking missing children are few among

30 *Kasif v. State (NCT of Delhi)* 2018 SCC OnLine Del 9768.

31 *M. Muthukumar v. The Inspector of Police* MANU/TN/5614/2018. Also see: *Thaniel Victor v. State* 1991 CriLJ 2416; *Anil Anatrao Lokhande v. State of Maharashtra* 1981 CRI.LJ.125; *Gurbaksh Singh Sibbia v. State of Punjab* 1980 AIR 1632 : 1980 SCR (3) 383.

32 *Bilal Isak Shaikh v. The State of Maharashtra* 2018 SCC OnLine Bom 1500 : (2018) 5 Bom CR 740.

several areas where human identification with greater precision is desired. Morphological and biometric inputs, CCTV footage, voice match, fingerprints, handwriting are various forensic features which have immense potential for identifying an individual. Serology and DNA test have largely helped in identification especially when dead bodies are disfigured or decomposed to the extent where conventional methods of human recognition become futile. During this survey, various critical legal issues, discussed below, have been addressed by various courts.

The decomposed dead body of the deceased victim of rape was identified by the matching DNA obtained from the controlled bone sample of the deceased and sweat detected on the identity card, belt and spectacles of the deceased recovered on the instance of the accused.³³ CCTV footage in addition to DNA helped to identify the accused and the deceased and High Court of Bombay confirmed the death sentence awarded by the session judge. In *Joginder v. State (NCT of Delhi)*³⁴ a police Sub-Inspector was killed. The composite usage of multiple forensic tools like DNA, soil analysis and footprints helped to identify the deceased and linked the criminal and brought him to courts.

A PIL was filed in the High Court of Delhi regarding hostage crisis of 2014 where 39 Indians were allegedly killed by the ISIS.³⁵ 38 dead bodies were identified based on DNA by collecting blood samples from their close relatives. No close relative of the 39th victim was available for DNA sampling and hence distant relative sample could match only 70%. In other case of murder, the dead body was identified by using multiple forensic techniques like DNA, super imposition test, etc.³⁶ A button of the deceased recovered from the go-down of the accused matched with the missing buttons of the shirt recovered from the accused also helped to link crime with criminal in addition to other evidence. In a fake police encounter in Dehradun, DNA helped to identify the dead body of a 20 year old boy and High Court of Delhi upheld the conviction of 18 police personnel.³⁷ During the extant survey, several other cases were decided where DNA, superimposition, and other forensic inputs helped to establish identity of the deceased³⁸ and criminalities also helped to link the accused.³⁹

33 *State of Maharashtra v. Chandrabhan Sudam Sanap* 2018 SCC OnLine Bom 6576.

34 2018 SCC OnLine Del 13026.

35 *Mehmood Pracha v. Intelligence Bureau* 2018 SCC OnLine Del 9499.

36 *Sheikh Chand Kha @ Chandu Kha v. State of M.P.* MANU/MP/0236/2018.

37 *Jaspal Singh Gosain v. CBI* 2018 SCC OnLine Del 6988.

38 *Kasif v. State (NCT of Delhi)* 2018 SCC OnLine Del 9768; *State of Tamil Nadu v. Saravanan* 2018 SCC OnLine Mad 10635; *State of Maharashtra v. Revatkumar Tukaram Nimje* 2018 ALL MR (Cri) 3144 : 2018 (4) Bom CR (Cri) 845; *Manoj @ Lalya v. The State of Maharashtra* 2019 (1) Crimes 168 (Bom); *Vipin Kumar Saluja v. State (NCT of Delhi)* MANU/DE/0031/2018; *Nagraj Chandmal Chajed v. State of Maharashtra* 2018 SCC OnLine Bom 4850; *Gheesaram v. State of Madhya Pradesh* MANU/MP/0259/2018.

39 *State of Kerala v. Rajendran* 2018 SCC OnLine Kar 15861; *Madan M. v. State of Karnataka* 2018 SCC OnLine Kar 3673; *Shri Monappa Parava v. The State of Karnataka* 2018 (3) AKR 119 : 2018 (3) KCCR 2417; 2018 (4) KarLJ 471; *Manikandan v. State of Kerala*, MANU/KE/3120/2018; *Anil Chauhan v. State of Himachal Pradesh* ILR 2018 2 HP 74 : MANU/HP/0235/2018; *In Reference v. Baadu* Crim. Reference No. 11/2018, Madhya Pradesh High Court, decided on 27 Nov., 2018.

Identification of rape accused

Rape is a crime usually committed in isolation, thus making it difficult to get a credible eye witness. Corroboration is not a *sine qua non* for a conviction of a rape case.⁴⁰ However, DNA in addition to other forensic inputs convincingly assists the prosecution to find truth behind the alleged rape and facilitates equitable justice by providing fair opportunity to the accused for proving his innocence. In a case of rape with a four year old girl child,⁴¹ DNA test was carried out by amplification of 24 autosomal genetic markers with Global Filer Kit. The matching DNA helped the high court to affirm the death sentence. In yet another rape and brutal murder of a seven year old girl, CCTV footage established the movement of the accused with the victim and DNA linked him as author of the sexual crime.⁴²

The death penalty was upheld by the High Court Madhya Pradesh in a case of rape and murder of 3 and 1/2 months old baby girl.⁴³ The DNA profile of the accused matched with the profile of the semen stains collected from the clothes and vaginal smear of the deceased child. High Court Delhi in a gang rape case upheld life imprisonment based on matching DNA and prosecutrix identified the rapists during the test identification parade (TIP).⁴⁴ A criminal appeal of an accused, where DNA and medico-legal opinion establish the grossest rape with a 3 and ½ years toddler, was dismissed by the High Court of Gujarat.⁴⁵ The FSL report also shows presence of oil on the clothes of the deceased and the same oil was found on the clothes of the appellant and from the floor at scene of offence.

The conviction of an accused by the trial court and ratified by the high court was set aside by the apex court on the premise that no semen could be detected on the clothes of the victims, no mark of injuries and several other contradictions in the statements of the prosecutrix and her husband.⁴⁶ On the other hand, High Court of Delhi upheld conviction in a rape case based on the unimpeachable testimony of the prosecutrix even though there was no bodily injury and no semen was on any exhibits hence DNA could not be conducted.⁴⁷ In yet another appeal by the accused domestic servant against conviction for rape and gruesome murder of 82 year old woman and attempt to burn her dead body by putting kerosene, High Court of Delhi set aside the conviction since DNA analysis negated the presence of semen on the vaginal swab or DNA of the victim on the smegma collected from the accused.⁴⁸ The court referred to the observation of the apex court, "It is a trite proposition of law, that suspicion however

40 *The State of Himachal Pradesh v. Manga Singh* 2018 SCC OnLine SC 2886, at para 12.

41 *In Reference v. Vinod @ Rahul Chouhatha* 2018 SCC OnLine MP 466.

42 *Jitendra Kushwah v. The State of Madhya Pradesh*, Crim. Appeal No. 08/2018, Madhya Pradesh High Court, decided on 25 Oct., 2018.

43 *The State of Madhya Pradesh v. Naveen @ Ajay* 2018 SCC OnLine MP 952.

44 *Usman Alias Kale v. State (NCT of Delhi)*, 30 January, 2018

45 *Chhotelal Mohanlal Chamar v. State of Gujarat*, Crim. Appeal No. 402 of 2018, Gujarat High Court, decided on 9 May, 2018.

46 *Dola v. State of Orissa* 2018 SCC OnLine SC 1224.

47 *Billoo v. State (NCT of Delhi)* 2018 SCC OnLine Del 12745.

48 *Neeraj Safi v. State (NCT of Delhi)* 2018 SCC OnLine Del 11637.

grave, it cannot take the place of proof and that the prosecution in order to succeed on a criminal charge cannot afford to lodge its case in the realm of “may be true” but has to essentially elevate it to the grade of “must be true.”⁴⁹ Thus the approach of the courts appears to be different under similar sets of evidence.

It is an erroneous notion holding that DNA profiling may be done only when semen is found on the body, vaginal swab or clothes of the prosecutrix. Forensic experts must search for DNA from various other sources like blood, skin remains, nail clips, pubic hair combing, and fine hairs which may have been exchanged as per the Locard’s principle during friction of the bodies in sexual assault. The body search of the accused for getting biological remains of the prosecutrix may also help to conduct reverse DNA test to prove guilt. Recently in UK,⁵⁰ the Court of Appeal has convicted the accused since his DNA was found on the articles left at the crime scene. During this survey in several other cases of rape and sodomy DNA further assisted judiciary to find the truth behind the allegations of rape and sodomy.⁵¹

Age determination

In legal proceedings, for various reasons age determination is very significant especially in sexual offences since age of prosecutrix decides invoking provisions of the POCSO Act by the prosecution and contesting for the plea of consensual sex by the defense. In *Ramesh Chand v. State of Himachal Pradesh*⁵² based on X-ray of right shoulder, elbow and wrist and X-ray pelvis AP view, the age of prosecutrix was ascertained as about thirteen years and a half (plus minus half) by the forensic expert.⁵³ In another appeal against acquittal order in a child sexual abuse case, Delhi high Court has dealt the issue of determination of age and testimony of a child.⁵⁴

Childhood incestuous abuse

During instant survey several cases came across where minor girls were sexually abused by close relatives including father. The vulnerability increases when victim’s mother has died or the accused is her step father.⁵⁵ A minor was exploited for eight years, resulting in birth of two children before she could muster courage to expose

49 *Jose @ Pappachan v. The Sub inspector of Police, Koyilandy* (2016) 10 SCC 519.

50 *R v. Tsekiri* [2017] EWCA Crim 40.

51 *Vinod Soren v. State (NCT of Delhi)* 252 (2018) DLT 322; *State (NCT of Delhi) v. Dharmender* 2018 SCC OnLine Del 8259 : (2018) 249 DLT 736 (DB).

52 2018 SCC OnLine HP 1542.

53 The age was determined based on the facts that acromion and corocoid appeared, but acromion, head of humerus are not fused. All epiphysis at elbow appeared and fused-more than 13 years. Epiphysis of radius and ulna at wrist not fused, pisiform was present - 12 to 15 years. Iliac crest started appearing. Head of femur and lesser trochanter not fused. Epiphysis of ischial tuberosity not appeared. Triradiate cartilage is almost fused - about 13 to 14 years. The cumulative effect the expert opinion is that the age of the prosecutrix at the time of occurrence was about thirteen and half years plus minus half year. However, all these bone conditions (fusion of epiphysis) depends upon the environmental condition and nutrition and hereditary etc. at the time of giving opinion qua the age of the prosecutrix.

54 *State (NCT of Delhi) v. Dharmender* 2018 SCC OnLine Del 8259: (2018) 249 DLT 736 (DB).

55 *Salim Ahmed v. State of Maharashtra* 2018 SCC OnLine Bom 1793; *Sandip Ramesh Gaikwad v. The State of Maharashtra* 2018 SCC OnLine Bom 2067.

her step father, who after facing trial, was convicted for life. During appeal, High Court of Delhi drew attention “to the urgent need for a comprehensive scheme, preferably legislative, to address the needs of the victims of crime, which in this case includes not only the prosecutrix, but her children and the wife and children of the appellant. Complete justice requires redressing the victims suffering even while punishing the criminal.”⁵⁶

Rape induced pregnancy of minor victims

Worldwide, the issue of addressing rape induced foetus and its termination poses a legal challenge. In 1938, the girl’s mental suffering as a victim of rape was accepted as a sufficient reason for abortion.⁵⁷ *Roe v. Wade*⁵⁸ was yet another leap towards woman’s empowerment by enabling use of contraceptives, to decide the fate of her pregnancy and legalized abortion in the United States. The Medical Termination of Pregnancy (MTP) Act, 1971 in India has echoing effect of the United Kingdom Abortion Act, 1967 making consent of a woman or her legal guardian mandatory. To save life of woman, Section 5 lifts the embargo of termination of pregnancy up to 20 weeks, and necessitates opinion of more than one doctor in case of emergency where life of mother is in danger. In United Kingdom, termination of pregnancy is allowed up to 24 weeks, and the United Kingdom guidelines state that, in case of any pregnancy beyond 21 weeks and six days, the doctor can administer an injection for foeticide before the foetus is evacuated.⁵⁹

There is an increasing trend of rape led pregnancies in India especially where the prosecutrix is a minor and ignorant in timely acknowledging and reporting biological changes as a consequence of gravidity. As a result, considering the health hazard for the victim, often termination of pregnancy may not be medically permissible due to advanced stage of foetus. If pregnancy is beyond 20 weeks, the permission of court is mandatory in accordance with the MTP Act, 1971.⁶⁰ The High Court of Madhya Pradesh observed that a victim of rape cannot be compelled to give birth to a child of rapist, provided conditions of the MTP Act are fulfilled.⁶¹ Several cases for termination of rape induced pregnancy were addressed by the constitution courts during 2018.⁶²

56 *Hari Singh Rawat v. State (NCT Delhi)* 2018 SCC OnLine Del 7689, para 2.

57 *The King v. Bourne* [1938] 3 All ER 615. Also see: *R (name withheld) v. State of Haryana* 2016 SCC OnLine P&H 18369 at para 64: (2016) 3 RCR (Cri) 1 : (2016) 3 RCR (Civil) 428.

58 410 U.S. 113 (1973).

59 6.7 Feticide at 57, “The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline Number-7” Royal College of Obstetricians and Gynaecologists (2011). Available at: https://www.rcog.org.uk/globalassets/documents/guidelines/abortion-guideline_web_1.pdf (last visited on 20 August, 2019).

60 *X v. Union of India* 2018 SCC OnLine Bom 7358. Also see: G.K. Goswami, “Forensic Law” LII : 2016 *ASILI* 599 (2018).

61 *Ms. X. v. State of Madhya Pradesh* 2018 SCC OnLine MP 470.

62 *Alakh Alok Srivastava v. Union of India* 2018 SCC OnLine SC 212; *Surjibhai Badaji Kalasva v. State of Gujarat* 2018 SCC OnLine Guj 190 : (2018) 59 (3) GLR 2498; *Abasaheb Vitthal Sutar v. State of Maharashtra* 2018 SCC OnLine Bom 12353.

In *Alakh Alok Srivastava v. Union of India*⁶³ the apex court based on medical advice declined to terminate nearly 32 weeks old foetus of a girl child who was a rape victim. However, DNA match in such incidents probe guilt of the rapist beyond reasonable doubt. In such cases, law only punish the guilty persons, but in absence of explicit rehabilitation schemes in place, such unfortunate ‘fatherless’⁶⁴ children and the prosecutrix face challenges and hardship throughout their life. The High Court of Bombay rejected an appeal being sans on merit against conviction order where all the 15 different genetic markers analyzed with PCR matched with the putative father and thus established the minor prosecutrix and the accused as biological parents of the child born as consequence of rape.⁶⁵

Anonymity of rape victim

For the purpose of addressing social stigma and other consequences, the apex court in the *Nipun Saxena v. Union of India*⁶⁶ has dealt the issue of modalities to maintain the anonymity of the identity of rape victims (irrespective of survivor or deceased). The apex court observed while succinctly narrating the miseries of the rape survivor:⁶⁷

Unfortunately, in our society, the victim of a sexual offence, especially a victim of rape, is treated worse than the perpetrator of the crime. The victim is innocent. She has been subjected to forcible sexual abuse. However, for no fault of the victim, society instead of empathizing with the victim, starts treating her as an untouchable. A victim of rape is treated like a pariah and ostracised from society. Many times, even her family refuses to accept her back into their fold. The harsh reality is that many times cases of rape do not even get reported because of the false notions of so called honour which the family of the victim wants to uphold. The matter does not end here. Even after a case is lodged and FIR recorded, the police, more often than not, question the victim like an accused. If the victim is a young girl who has been dating and going around with a boy, she is asked in intimidating terms as to why she was dating a boy. The victims first brush with justice is an unpleasant one where she is made to feel that she is at fault; she is the cause of the crime.

The apex court further held that “... the identity of the person does not solely mean that only the name of the victim should not be disclosed but it also means that the identity of the victim should not be discernible from any matter published in the media. The intention of the law makers was that the victim of such offences should

63 2018 SCC OnLine SC 212.

64 Under the Indian legal lexicon, a father is one who is legally wedded to the mother of the child at the time of his birth or within 280 days of divorce. (s. 112 of the Indian Evidence, Act, 1872).

65 *Vishal Dagdu Gawai v. The State of Maharashtra* Crim. Appeal No. 264 of 2017, Bombay High Court of Bombay, Mar.23, 2018.

66 (2019) 2 SCC 703; (2019) 1 SCC (Cri) 772.

67 *Id.* at para 4.

not be identifiable so that they do not face any hostile discrimination or harassment in the future.”⁶⁸ Regarding digital publication of the First Information Report (FIR) on public platform, the court held that “We make it clear that the copy of an FIR relating to the offence of rape against a women or offences against children falling within the purview of POCSO shall not be put in the public domain to prevent the name and identity of the victim from being disclosed.”⁶⁹

An adult victim is empowered by the clause (b) of sub-section (2) of section 228A IPC to give her consent or authorize any person in writing to publish/disclose her name or identity but this has to be a voluntary and conscious act of the victim. In the instant case, the apex court also suggested for deleting ‘minor’ from clause (c) of sub-section (2) of section 228A of the penal code after the enactment of the POCSO Act. The court also deliberated upon the issue of ‘the next of kin’⁷⁰ for a minor victim for authorising disclosure of her name to media and hold that in the interest of justice the name or identity of the victim of sexual abuse should not be disclosed even under the authorization of the next of the kin, without permission of the competent authority. The apex court in Bihar shelter home case⁷¹ held that “In the interest of all victims of sexual abuse and sexual violence, we restrain the electronic media from telecasting or broadcasting the images of the victims in a morphed or blurred form.”⁷² Provisions under section 33 (7) of the POCSO Act empower the special court to ensure that the identity of the child is not disclosed at any time during the course of investigation or trial except the circumstances such disclosure serves the best interest of the child. For the purposes of this sub-section, the identity of the child shall include the identity of the child’s family, school, relatives, neighbourhood or any other information by which the identity of the child may be revealed. However, it is observed during survey that in case of male victims of sexual assault, the implementation of law on anonymity is not strictly adhered to even by the judiciary.

Role of DNA and other forensic inputs for determining culpability

Expert opinion is the baseline for helping courts in pursuit of truth. DNA and other scientific evidence largely corroborate the oral testimony in order to prove guilt or innocence of an accused. In rape incidents the apex court has repeatedly stressed that corroboration is not sine qua non in prosecution if the testimony of the prosecutrix inspires confidence and merited acceptance. During this survey, in plethora of cases

68 *Id.* at para 11.

69 *Id.* at para 13. The apex court in the *Youth Bar Association of India v. Union of India* (2016) 9 SCC 73: AIR 2016 SC 4136, has directed the state governments to publish online FIR within 48 hours (extendable maximum up to 72 hours only relatable to connectivity problem due to geographical location) except in the cases of sensitive nature like sexual offences including under the POCSO Act, offences pertaining to insurgency, terrorism etc.

70 Contemplated under the Indian Succession Act, 1925.

71 *Nivedita Jha v. State of Bihar* 2018 SCC OnLine SC 1616.

72 *Id.* at para 4.

forensic tools were used during investigation for proving guilt/innocence,⁷³ however, few cases of academic significance are discussed below.

Two review petitions were filed in the Supreme Court against the death row by the convicts in the *Nirbhaya* case.⁷⁴ Both petitions were rejected since the conviction was based on strong foothold of evidence cogently corroborated by recovery of Samsung Galaxy phone of the deceased victim from the applicant convict and forensic inputs such as DNA and fingerprint match. In another incident of rape with a minor, the death penalty approved by the Bombay High Court was challenged before the apex court.⁷⁵ Based on matching DNA and medico-legal reports, the conviction was upheld with commuting punishment for life imprisonment.

A cab driver raped a working girl aged 25 years while she was returning home in Delhi late in the night. Medico-legal examination reported several bodily injuries such as bruises on breast, back, bite marks on lips, however, the hymen was found intact with “redness present over the introitus”. All samples including nail clippings, swab from in between the fingers, swab from both the breasts, oral swab, anal swab, pubic hair combing, pubic hair clipping, cervical swab, vaginal swab, washing from vagina, blood culture, urine sample *etc.* were also collected in conformity with the sexual assault kit in addition to the clothes of the victim. DNA test established the semen of the accused found on the vaginal swab, cervical mucus, rectal swab, jeans pant, and underwear of the victim. The sentence of life imprisonment was upheld by High Court of Delhi. However, in several cases, despite matching DNA the conviction orders were set aside on different grounds by the constitutional courts.⁷⁶

73 *Harpal Singh v. State (NCT of Delhi)* 2018 SCC OnLine Del 7028; *Ravi Kapoor v. State (NCT of Delhi)* 2018 SCC OnLine Del 11771; *Rohit @ Rahul v. State (NCT of Delhi)* 2018 SCC OnLine Del 7538; *Sanjay Kumar Valmiki v. State (NCT of Delhi)* 2018 SCC OnLine Del 9304; *Vipin Kumar Saluja v. State (NCT of Delhi)* 2018 SCC OnLine Del 6414; *Sunil @ Raghu v. State (NCT of Delhi)* 2018 SCC OnLine Del 7401; *State of Maharashtra v. Maruti Ragho Solkar* 2018 SCC OnLine Bom 13090; *Ganesh Pralhad Sontakke v. State of Maharashtra* 2018 SCC OnLine Bom 13090; *Raju Vitthal Shriram v. State of Maharashtra* 2018 SCC OnLine Bom 14228; *Shivangi Gangwar v. State of Uttarakhand* 2018 SCC OnLine Utt 473; *The State of West Bengal v. Sri Shyamal Karmakar* 2018 SCC OnLine Cal 160; *Gopi Nath Mallah v. State (NCT of Delhi)* 2018 SCC OnLine Del 11021; *Khushwinder Singh v. State of Punjab*, (2019) 4 SCC 415; *Krishan @ Chuhiya v. State of Himachal Pradesh* 2018 SCC OnLine HP 602; *Neeraj v. State of Himachal Pradesh* 2018 SCC OnLine HP 1846; *Kishan Chand v. State of Himachal Pradesh* 2018 SCC OnLine HP 252 : 2018 Cri LJ 2451; *Sunil @ Sonu v. State (NCT of Delhi)* 2018 SCC OnLine Del 10456 : (2018) 251 DLT 639; *Bharat Polaji Ghanchi @ Ghelot v. The State of Maharashtra* 2018 SCC OnLine Bom 4850. *Subhasish Ghosh v. The State of West Bengal* (2018) 4 Cal LT 596 (HC); *Prafulla Rambhau Kachare v. State of Maharashtra* MANU/MH/1388/2018; *Vikram Khimta v. State of H.P.* 2019 (1) Shim LC 536; *Mohd. Yasir v. State (NCT of Delhi)* Cri A. 1277/2014 Delhi High Court, decided on 26 April, 2018.

74 *Mukesh v. State (NCT of Delhi)* (2018) 8 SCC 149; *Vinay Sharma v. State (NCT of Delhi)* (2018) SCC 186.

75 *Babasaheb Marut Kamble v. State of Maharashtra* 2018 SCC OnLine 2767.

76 *Rohit @ Rahul v. State (NCT of Delhi)* 2018 SCC OnLine Del 7538; *Shailesh @ Rinku v. State (NCT of Delhi)* 2018 SCC OnLine Del 8319.

Medico-legal report

Allahabad High in *Anjum v. State of Uttar Pradesh*⁷⁷ imposed cost on the doctor for not obeying the circular dated December 19, 2012 issued by the Director General of Health, State of Uttar Pradesh and continued to submit illegible medico-legal reports. The circular was issued on the direction of the court in *Chhabi Raj v. State of UP*,⁷⁸ which underpinned the significance of the medico-legal report and directed the medical experts to prepare printed medico-legal and post mortem reports. The court directed that "... investigating officer while filing charge-sheet may also file along with handwritten Medico-legal and post mortem reports, their verbatim typed or computerized version, duly certified by the authors of those documents or the head of the concerned hospital."

In a POCSO case, the Himachal Pradesh High Court in *Ramesh Chand v. State of Himachal Pradesh*⁷⁹ observed that "Avowedly, in sexual offences medical evidence is crucial aid to Courts to convict or acquit the accused, however, the same cannot at all be read in isolation without important ancillary material." Based on matching DNA and other forensic and oral evidence conviction was upheld by the high court. The Allahabad high court on medical opinion especially addressing defense contention of absence of spermatozoa and intact hymen has observed:⁸⁰

The medical evidence is only an advisory in character given on the basis of the symptoms found on examination of the victim. The expert witness is expected to put before the Court all materials inclusive of the data which induced him to come to the conclusion and enlighten the Court on the technical aspect of the case by explaining the terms of science so that the Court although, not an expert may form its own opinion on those materials after giving due regard to the expert's opinion because once the expert's opinion is accepted, it is not the opinion of the medical officer, but of the Court.

In iniquitous *Asha Ram* case,⁸¹ where the high court of Himachal Pradesh overturned the conviction order of the trial court based on absence of spermatozoa and intact hymen, the apex court set aside the high court order by observing:

... The High Court also totally overlooked the prosecution evidence, which inspired confidence and merited acceptance. It is now well settled principle of law that conviction can be founded on the testimony of the prosecutrix alone unless there are compelling reasons for seeking corroboration. The evidence of a prosecutrix is more reliable than that of an injured witness. The testimony of the victim of sexual assault is vital unless there are compelling reasons which necessitate looking for corroboration of her statement, the courts should find no difficulty in acting on the testimony of a victim of sexual assault alone to convict

77 MANU/UP/4376/2018 : 2018 (4) RCR (Criminal) 593.

78 MANU/UP/1504/2018 : 2018 (1) ACR 872.

79 2018 SCC OnLine HP 1542.

80 *Dashrath v. State of Uttar Pradesh* MANU/UP/4109/2018.

81 *Himachal Pradesh v. Asha Ram* 2006 Cri.L.J. 139.

an accused where her testimony inspires confidence and is found to be reliable. It is also well settled principle of law that corroboration as a condition for judicial reliance on the testimony of the prosecutrix is not a requirement of law but a guidance of prudence under given circumstances. The evidence of the prosecutrix is more reliable than that of an injured witness. Even minor contradictions or insignificant discrepancies in the statement of the prosecutrix should not be a ground for throwing out an otherwise reliable prosecution case.

Regarding 'hymen injuries' to a minor victim the apex court referred from 'A Textbook of Medical Jurisprudence and Toxicology', "In small children, the hymen is not usually ruptured, but may become red and congested along with the inflammation and bruising of the labia. If considerable violence is used, there is often laceration of the fourchette and the perineum".⁸²

Virtopsy is the future of medico-legal examination in order to provide variety of forensic inputs. The term Virtopsy is a portmanteau of 'virtual' and 'autopsy' (to see with own eyes), which combines scanning and radio-graphics with powerful 3D resolution.⁸³ This technology employs multi-disciplinary approach combining forensic medicine and pathology, roentgenology, biomechanics, physics etc., which employs computer graphics for the purpose of imaging methods such as computed tomography and magnetic resonance imaging. The method is non-invasive in nature protecting integrity of the body and the results are digitally stored, which are reproducible. This technology is prevalently used in jurisdictions like Switzerland, United States, United Kingdom, Japan and Malaysia. India must adopt digital autopsy to enhance probity of expert opinion with high degree of precision. It may potentially promote the humanitarian forensics by way of securing bodily integrity of a dead body during post-mortem.

Fingerprints

Two trans-genders were robbed and brutally killed in *Sonvir @ Sombir v. State (NCT of Delhi)*.⁸⁴ The apex court deliberated upon the power of a police officer to take samples of fingerprints of the accused. The Identification of Prisoners Act, 1920 under section 4 is a substantive power for enabling a police officer to get measurements in the prescribed manner from a person arrested in a case where punishment is rigorous imprisonment for a term of one year or upwards. The magistrate is empowered under section 5 of the Act, 1920 is an additional provision to secure the end of justice even in cases where investigator has not taken the fingerprints of an accused. The apex court further observed, "... it cannot be held that power under section 4 can be exercised by the Police Officer only after obtaining an order under section 5."⁸⁵ However, section

⁸² *State (NCT of Delhi) v. Khurshheed* 2018 SCC OnLine Del 10347: (2018) 251 DLT 498 (DB).

⁸³ Vito Cirielli *et.al.* "Virtual Autopsy as a Screening Test Before Traditional Autopsy" 9: 28 *J Patho Inform* (2018); Raj Kumar Badam *et. al.* "Virtopsy: Touch-free autopsy" 9(1) *J. Forensic Dent. Sci.* 42 (2017); Richrd Dirhofer, "Virtopsy: Minimally Invasive, Imaging guided Virtual Autopsy" 26(5) *Radiographics* 1305 (2006).

⁸⁴ (2018) 8 SCC 24.

⁸⁵ *Ibid* at para 41.

3 enables police officer to take photographs and fingerprints of a convict, but section 5 is inapplicable unless rules are framed accordingly under the Statute.

The issue of giving thumb impression and photo under section 311A of Cr PC was dealt by the high court of Andhra Pradesh.⁸⁶ The high court deliberated several judgements of the apex court and modified the directions of the magistrate to give the signature, writing and thumb impression but not the photograph.

Voice sample

In a rape case,⁸⁷ legal issue of voice identification by an acquainted person was raised before the apex court. After citing several relevant judgements, the bench held that “Thus from the above cases we may cull out the principle that identification from the voice of the accused may be possible if there is evidence to show that the witness was sufficiently acquainted with the accused in order to recognize him or her by voice”.⁸⁸ The voice recorded for demanding ransom on mobile phone was recorded which matched with the voice samples of the accused corroborates the factum of the incident of kidnapping for ransom and murder, linking the crime with criminal.⁸⁹ The High Court of Madras dismissed the appeal of the accused against the trial court order for directing the appellant to give voice sample.⁹⁰

For taking voice sample of the subject, the apex court in the *Sudhir Chowdhary v. State (NCT of Delhi)*⁹¹ observed that giving of voice sample is not evidence; the purpose is only to compare it with the questioned sample. Recently the apex court has finally decided the power of Magistrate for ordering the subject to give voice sample;⁹² however, the case shall be dealt in the annual survey of 2019.

Video-graphy of crime scene

The legal issue was raised before the apex court in *Shafhi Mohammad v. The State of Himachal Pradesh*⁹³ whether videography of place of incidence must be made obligatory to inspire confidence in the evidence collected. The perceived benefits of body-worn camera of deterrence against anti-social behaviour currently used in many developed countries were flagged before the court. This case has also dealt with the issue of certification under section 65-B of the Indian Evidence Act, and provides relaxation from certain conditions which were defined earlier by the apex court in *Anvar P. v. PK Basheer*.⁹⁴ A three judge bench of the apex court in *Tomaso Bruno v. State of Uttar Pradesh*⁹⁵ observed that advancement of information technology and scientific temper must pervade the method of investigation. The apex court in the

86 *Golla Vara Prasad v. State of Andhra Pradesh*, 2018 SCC OnLine Hyd 467.

87 *Dola v. State of Odisha* 2018 SCC OnLine SC 1224.

88 *Id.*, para 21.

89 *Joginder @ Mintu v. The State (NCT of Delhi)* 2018 SCC OnLine Del 12152.

90 *R. Thinesh Kumar v. State represented by Inspector of Police, CBI*, 2018 SCC OnLine Mad 4927.

91 (2016) 8 SCC 307 (3JB).

92 *Ritesh Sinha v. UoI* 2019 SCC OnLine SC 956.

93 (2018) 5 SCC 311; 2018 SCC OnLine SC 233; (2018) SCC (Cri) 704. Also see: (2018) 2 SCC 801; 2018 SCC OnLine SC 56; (2018) SCC (Cri) 860.

94 (2014) 10 SCC 473.

95 (2015) 7 SCC 178. Also see: *Karnail Singh v. State of Haryana* (2009) 8 SCC 539.

case in hand directed to implement the plan of action prepared by the Committee, a Central Oversight Body (COB) to be set up by Ministry of Home Affairs and COB will be responsible for further planning and implementation of the use of videography. The apex court further directed to install cameras in all police stations across country in order to check human rights abuse as deliberated in *D.K. Basu v. State of West Bengal*.⁹⁶

Admissibility of the digital evidence

The admissibility of electronic evidence is conditioned upon the fulfilment of the provisions under section 65B of the Indian Evidence Act, 1872.⁹⁷ The apex court in *Shafiqi Mohammad v. State of Himachal Pradesh*⁹⁸ held that “Accordingly, we clarify the legal position on the subject on the admissibility of the electronic evidence, especially by a party who is not in possession of device from which the document is produced. Such party cannot be required to produce certificate under Section 65B (4) of the Evidence Act. The applicability of requirement of certificate being procedural can be relaxed by Court wherever interest of justice so justifies.”

Forensic frauds

Manipulations in forensic exhibits and frauds in tendering expert opinion remained a huge challenge in the field of criminalities. In a rape case with eight years old minor girl the trial court acquitted the accused based on DNA report suggesting that semen found on the inner garment of the prosecutrix does not match with the accused, but report was not even shown despite being available on court records.⁹⁹ However, victim’s mother was an eye witness of the crime and medico-legal report indicated commission of crime. During the appeal by the state, High Court of Delhi order to re-conduct DNA test which matched with the accused. It surfaced that earlier blood sample of the accused was compromised. The accused was convicted and CBI probe was ordered to examine the forensic frauds in CFSL, New Delhi.

Shoddy investigation

Fairness in investigation is the quintessence of fair trial. The Investigating Officer (IO) plays pivotal role in administration of justice since evidence collected during investigation pave the way for trial proceedings in the adversarial justice system. Shoddy investigation forfeits the very purpose of trial proceedings. The apex court in *Sheila Sebastian v. R. Jawaharaj*¹⁰⁰ has observed that “... He [Investigating officer] has to be fair, transparent and his only endeavour should be to find out the truth. ... It is the duty of the investigating officer, prosecution as well as the courts to ensure that full and material facts and evidence are brought on record, so that there is no scope for miscarriage of justice”.¹⁰¹ Criticising status of criminal investigation the High Court of Uttarakhand observed, “The Revenue Officers are also not well conversant with the general principles of crime scene investigation, general principles of packaging

96 (2015) 8 SCC 744.

97 *Anvar P. v. V. P. K. Basheer* (2014) 10 SCC 473: 2014 SCC OnLine SC 732.

98 (2018) 5 SCC 311.

99 *State (NCT of Delhi) v. Khurshed* 2018 SCC OnLine Del 10347 : (2018) 251 DLT 498 (DB).

100 (2018) 7 SCC 581.

101 *Id.* at para 29.

of exhibits, forensic biology, DNA profiling, bloodstain pattern, explosive substances, acid attack cases, digital evidence, road accidents, image analysis, polygraph test, wildlife, speaker identification etc.”¹⁰² The high court directed the Uttrakhand government to abolish a more than century old practice of Revenue Police System in various parts of the state within six months, and to put the regular police system in place as prevalent in the entire country.

Earlier the apex court in the *State of Karnataka v. K. Yarappa Reddy*¹⁰³ held that “the Court must have predominance and pre-eminence in criminal trials over the action taken by investigating officers. Criminal justice should not be made the casualty for the wrongs committed by the investigating officers in the case. In other words, if the court is convinced that the testimony of a witness to the occurrence is true the court is free to act on it.”¹⁰⁴ In *State of Gujarat v. Kishanbhai*¹⁰⁵ the same court emphasized on scientific investigation and usage of DNA by observing, “In spite of so much advancement in the field of forensic science, the investigating agency seriously erred in not carrying out an effective investigation to genuinely determine the culpability of the respondent-accused.”

In *Ayesha Meera* rape and murder case,¹⁰⁶ the High Court of Andhra Pradesh reversed the conviction order of the trial court on the surmise of perfunctory investigation and directed the police to conduct *de novo* investigation. Dealing the legality of *de novo* investigation, since section 173(8) of Cr PC only permits police to conduct ‘further investigation’, the court deliberated that ‘fresh investigation’, ‘reinvestigation’ and ‘*de novo* investigation’ are synonyms and in the interest of justice the higher courts may only direct police to conduct such investigation either under section 482 Cr PC or writ jurisdiction. The Supreme Court *Vinay Tyagi v. Irshad Ali @ Deepak*¹⁰⁷ dealt the issue of re-investigation and transferring of cases from one agency to other. The apex court had observed:

Neither the investigating agency nor the Magistrate has any power to order or conduct ‘fresh investigation’, as that would be opposed to the scheme of the Criminal Procedure Code .. Where the investigation is ex-facie unfair, tainted, mala fide and smacks of foul play, the Courts would direct a fresh or *de novo* investigation; and, if necessary, even by another independent investigating agency. This is a power of wide plenitude and should, therefore, be exercised sparingly. ... Unless the unfairness of the investigation is such that it pricks its judicial conscience, the Court should be reluctant to interfere in such matters.

In the instant appeal (*Ayesha* case) the botched investigation faced severe criticism for not lifting the fingerprints on the body of the deceased which was dragged,

102 *Sundar Lal v State of Uttranchal* 2018 SCC OnLine Utt 34: 2018 CriLJ 2699.

103 (1999) 8 SCC 715.

104 *Id.* at para 19.

105 (2014) 5 SCC 108.

106 *Prof. Rama Shankarnarayan v. State of Andhra Pradesh* 2018 (1) ALT 709: 2018 (2) ALD 687. 2018 CriLJ 4995.

107 (2013) 5 SCC 762.

on which words were written (on the breast and thigh of the deceased girl name was written). It is a case where justice-delivery system was being taken for a ride and literally allowed to be abused, misused and mutilated by subterfuge; the investigation appeared to be perfunctory, biased, without any definite object of finding out the truth and bringing to book those who were responsible for the crime. The court directed *de novo* investigation and directed the state authorities to formulate a procedure for taking action against all erring investigating/prosecuting officials and on account of sheer negligence or culpable lapses, must initiate departmental action.

In *Rajendra Pralhadrao Wasnik v. State of Maharashtra*¹⁰⁸ an appeal was preferred by the accused before the Supreme Court against death sentence being awarded by the trial court and confirmed by the high court for committing rape with a three years old girl child. During investigation, DNA samples were collected from the accused but without any justification DNA report was not produced before the trial court. This braced the view of the apex court to commute death penalty to life imprisonment for the rest of his normal life. Regarding callous attitude of prosecution to conduct DNA test, Lokur J observed:

For the prosecution to decline to produce DNA evidence would be a little unfortunate particularly when the facility of DNA profiling is available in the country. The prosecution would be well advised to take advantage of this, particularly in view of the provisions of section 53-A and section 164-A of the Cr PC. We are not going to the extent of suggesting that if there is no DNA profiling, the prosecution case cannot be proved but we are certainly of the view that where DNA profiling has not been done or it is held back from the Trial Court, an adverse consequence would follow for the prosecution.

The observations of the apex court are a progressive judicial interpretation and forensic evidence must be integral component of investigation. In fact author of this survey has suggested in yesteryear's annual surveys that legal binding for conducting DNA must in place by introducing enabling amendment in section 53-A and 164-A of Cr PC and other provisions of criminal laws, for the purpose of ensuring probity of evidence during justice delivery.¹⁰⁹

Often due to lack of professionalism and casual approach of the IO vital evidence are not being collected resulting in miscarriage of justice. In *State (Govt. of NCT of Delhi) v. Manish*¹¹⁰ the incident of rape was timely reported but DNA was not conducted on the vaginal swab, clothes of the victim and bed sheet where the alleged rape occurred. Neither blood samples from the accused were collected, nor issue of age of victim was addressed resulting in acquittal, also upheld by the high court. Insensitive approach of investigator towards prospective forensic inputs needs urgent attention.

In double murder of transgender with robbery was acquitted by the high court and the apex court despite recovery of 15 items of jewellery, NOKIA 6600 mobile

108 2018 SCC OnLine 2799.

109 *Supra* 4 at 410.

110 2018 SCC OnLine Del 13291.

phone and other looted item.¹¹¹ High Court of Delhi and apex court found that mere blood group match may not be incriminating evidence since human blood of B group may be of any other person as deliberated in *Prakash v. State of Karnataka*¹¹² and *Debapriya Pal v. State of West Bengal*.¹¹³ This seems to be a classical case of shoddy investigation where despite recovery of a mobile phone of victim, blood stained clothes, huge cash and jewellery the case eventually ended in acquittal. The judiciary being the inherent superintendent of investigation would have directed police to conduct DNA test, mobile phone forensics etc. to reach bottom of truth of the blood stains. The lackadaisical approach to investigation must be dealt with iron hands to check marriage of justice. Use of forensic inputs must be made compulsory by way of introducing provisions under the criminal procedural law.

Hostility of sterling witnesses *vis-a-vis* forensic opinion

In India, for various reasons such as intimidation, duress, allurements, witnesses are prone to hostility. In many cases analysed during this survey DNA and other forensic inputs have helped the courts to find truth during administration of justice. In *Hemudan Nanbha Gadhvi v. The State of Gujarat*¹¹⁴ the trial court acquitted the accused based on the hostility of rape survivor despite correct identification of the accused in the test identification parade (TIP) in presence of the executive magistrate in addition to other corroborative forensic inputs like vaginal injuries in medico-legal examination, presence of accused semen on the clothes of the prosecutrix by serological match stitching crime with the criminal. The prosecutrix after turned hostile contended that she had injury in a fall. During appeal by the state, the high court reversed the acquittal order and convicted the accused. The apex court in the instant appeal of the accused observed that there is not an iota of doubt with regard to the identity of the appellant being the perpetrator, and there was sufficient time for the accused to win over the prosecutrix and her family by a settlement through coercion, intimidation, persuasion and undue influence. The apex court indicated duty of the court with regard to hostile witness by referring *State of NCT Delhi v. Sanjeev Nanda*¹¹⁵ where the apex court observed, "If a witness becomes hostile to subvert the judicial process, the court shall succinctly not stand as a mute spectator and every effort should be made to bring the truth, Criminal justice system cannot be overturned by those gullible witnesses who act under pressure, inducement or intimidation. Further, section 193 IPC imposes punishment for giving false evidence but is seldom invoked."¹¹⁶ The court further observed that case is fit to initiate legal action against the prosecutrix under section 344 Cr PC for tendering false evidence. However, considering her tender age (9 years) on date of occurrence, and she has since been married and settled into a new life, court refrain from directing for her prosecution.

111 *Sonvir alias Sombir v. State (NCT of Delhi)* (2018) 8 SCC 24.

112 (2014) 12 SCC 133; (2014) 6 SCC (Cri) 642, para 41 and 45.

113 (2017) 11 SCC 31; (2017) 3 SCC (Cri) 832, para 8.

114 2018 SCC OnLine SC 1688.

115 2012 (8) SCC 450.

116 *Id.* at para 101.

IV CONCLUSION

Science springs fairness and logic in the dominion of law. Criminalistics has significantly contributed in administration of justice. During survey, the rising trend of delayed disclosure of pregnancy after rape has been witnessed which causes multiple complications and compounds miseries and stigma of the prosecutrix and her family. It is suggested that with consent of prosecutrix, pregnancy test must be made integral part of section 164A of Cr PC so that pregnancy may timely be detected.

Despite the POCSO Act being gender neutral, it is observed that identity of a male victim of sexual abuse is hardly considered for anonymity, at every level including judiciary. Appropriate directions are required to be issued by the apex court.

Law-making in democracies is seldom cut and dried process. The jurisprudence and legal provisions on paternity determination are evidently inadequate which need immediate attention. Surrogacy laws in India are in the making. Live-in relationships are getting evident foothold in India. In changing social milieu affecting matrimonial relations, the presumption of paternity within lawful wedlock is not adequate to ensure justice to a child born beyond nuptial ties. DNA for paternity determination where parents are legally married at the time of child birth may result in legal conundrum especially by branding the child a 'bastard' and virtually 'fatherless' and 'illegitimate'. A matrimonial relationship may be illegitimate but not a child. These issues need detailed deliberations to evolve holistic socio-legal solutions. The Law Commission of India may venture for addressing these legal imperfections.

In the era of new generation crime, the stakeholders of criminal justice must be trained and well equipped with forensic technologies for passable corroboration of facts. The legal provisions must be in place to ensure proper usage of Criminalistics in the administration of justice. Augmenting forensic facility and enabling trained forensic experts are essential for strengthening fast track justice. Virtopsy, videography of crime scene and panoptic digital surveillance may be promoted to ensure deterrence of law. Forensic technology may not be confined to only detection of crime but the government must explore its potential in crime prevention by promoting focussed research and development.