

Appraisal of Forensic Report with Special Reference to Biological Evidence



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Delhi High Court

Jyotish Prasad vs State (Nct Of Delhi) on 10 July, 2009

Judgment delivered on: 10.07.2009

DEATH SENTENCE REFERENCE 2/2008

Sequence of Events.

- Ms **Dawn Emelie Griggs** aged about 60 years, an Australian citizen, arrived at the In the early hours of 17.03.2004 IGI Airport') from Hongkong. .
- She took a taxi from the prepaid taxi booth at about 2.30 a.m. (Driver : appellant **Jyotish Prasad**)
- After driving a short distance, the appellant **Ashish** was also admitted into the taxi by the appellant Jyotish Prasad.
- They took the taxi onto an unpaved (kachha) passage towards the jungle around the airport area.
- Ms Griggs started shouting. Ashish caught hold of her and gagged her mouth with a piece of cloth (in taxi for cleaning purposes).
- The appellants stopped the taxi near a well in the jungle and snatched her waist purse.
- Then taken out from the taxi and dragged near the bushes and raped by the appellants one by one.

- Caused injuries with screw driver , throttled by pressing neck, gagged and killed her.
- Took out the her luggage from the taxi, searched for valuables and threw in a dry well nearby and disappeared.
- At about 10.50 a.m., on 17.03.2004, an information was received at the police station IGI Airport, Delhi that a dead body of a female was lying in the jungle near IGI Airport.
- **IO (J.L. Meena)** reached the spot at about 11.20 a.m., found a dead body of a female of foreign origin lying in the jungle .
- **Blood** was noticed at the spot and a piece of cloth was found inserted in the mouth . One plastic bottle and spectacles were found lying near the dead body
- He also noticed injuries near the right eye and nose & bluish marks on her neck.

- Some articles (one red bag of medium size, two black bags and some loose papers, books and a pair of shoes) were found lying in a dry well nearby.
- On the request of the investigating officer Murari Pandey (PW-16) took out the articles from the well.
- On checking the contents of the bags, two photocopies of the passports (one Australian and the other British passport) in the name of Dawn Emelie Griggs were found.

- One photograph recovered from the baggage matched the photographs of Dawn Emelie Griggs seen in the photocopies of the passports.
- Crime team also reached the spot and photographed the dead body, place of incident and the surrounding areas.
- The finger print team also reached the spot and they lifted finger prints from the glass, one plastic lunch box and from one bottle of plastic and from the polythene pouch and a folder after taking the same out of the bags. These articles and bloodstained earth were sealed in parcels.
- IO also found ear rings lying near the head of dead body, which along with other belongings of the lady and those which were found on her dead body were sealed (a Citizen watch, two rings, one chutki, one stone necklace, one ring on which the following words were inscribed **Param Pita Shiv Parmatma**

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- Then IO left the spot reached IGI Airport , collected details of the flight including Photocopies of the flight chart , Photocopies of the disembarkation card, photo copies of the flight manifesto, record of the Bureau of Immigration, etc.
- He arrived at the conclusion that the deceased Ms Griggs had arrived at IGI Airport in the early hours by Flight No.CX-753 from Hongkong

- He collected carbon copy of a voucher issued in the name of the deceased from prepaid taxistand indicating the destination as Karol Bagh.
- IO also collected photocopy of the register maintained at the prepaid taxi (The original register was also later on placed on the judicial file during evidence).
- Owner of the taxi told it was driven by the Jyotish Prasad.
- On interrogation Jyotish Prasad confessed to the crime .

- He was taken to the place of incident .
- He identified the well where he dropped the belongings of the deceased.
- He also pointed out the sewage manhole where he dropped some cards and the passport .

- He took out a bundle (potli) out of the well containing 300 Australian dollars, seven travelers cheques, four currency notes of Hongkong dollars in the denomination of 100 dollars each and two currency notes of Hongkong dollars in the denomination of 20 dollars each travelers cheques in the name of Dawn E. Griggs.

- The crime team inspected the taxi and recovered one jungle gokhroo (wild thorn) from the right hand side rear tyre of the vehicle.
- One such **gokhroo*** was also found from the mat which was lying near the rear seat and the **mud*** was also removed from all the four tyres.
- Some hair were also lifted from inside the taxi.
- Finger prints were also lifted from the taxi by the finger print expert.

- **Jyotish** Prasad had named Ashish as accomplice who was also included in the investigation .
- Ashish, was taken to place of occurrence,he pointed out the place where he had thrown the screw driver which was taken out from the mud (kichar).
- On 01.04.2004, the investigating officer lifted six gokhroos (wild thorns) from the place of incident .
- On 23.03.2004, both the appellants were produced before Dr Sarvesh Tandon medical examination.
- Scalp hair, pubic hair and blood gauze of both the appellants were collected.
- Nail clippings of both hands, vaginal swabs, vaginal slides of the deceased were taken during P.M.
- Challan was filed on 26.05.2004 and the case was committed to the Sessions Court on 08.06.2004.

- When I O went to the FSL to collect the report in this case,he was told that more blood of the accused persons would be required for comparison and detailed examination.
- I.O moved before the learned Additional Sessions Judge, he was permitted to produce the appellants before the doctor for the purposes of collecting blood samples. Blood samples were taken.
- Appellants were produced before the doctor on 07.10.2004 and their blood samples were taken.
- On 22.11.2004, report was collected from FSL,which disclosed presence of semen ,hence [Section 376](#) (g) [IPC](#) was incorporated in the t. [supplementary charge-sheet dated 23.11.2004](#) submitted in cour

Conviction by trial court

- Jyotish Prasad and Ashish Kumar Kapri were convicted under [Sections 394/302/201/34](#) IPC as well as under [Section 376 \(2\)\(g\) IPC](#).
- **Extreme penalty of death sentence on both the appellants in respect of the offence of murder punishable under [Section 302](#) IPC.**
- **Conviction under [Section 394](#) IPC**, the appellants were sentenced to undergo rigorous imprisonment for 10 years each and also to pay a fine in the sum of Rs 1,000/- each and in default of the payment of such fine, they were to undergo simple imprisonment for one month each.
- **For offence under [Section 201](#) IPC**, the appellants were sentenced to undergo rigorous imprisonment for seven years alongwith a fine in the sum of Rs 1,000/- each. In default of payment of fine, they were required to undergo simple imprisonment for one month.

Honourable High court

- **Counsel on behalf of the appellant Jyotish Prasad :**
- There are no eye witnesses and it is entirely based on circumstantial evidence.
- The entire case is a frame-up. it was a face saving exercise conducted by the Police to show that tourists of developed nations get quick justice.
- There is probability of the evidence having been created.
- He submitted that the authorities were hard-pressed to solve the case somehow as it got a lot of media attention at both the national and international level.

- According to him, the scientific evidence, which includes the reports of the finger print experts, the DNA report, have all been manipulated.
- As regards the offence of rape, the learned counsel pointed out that the circumstances also do not indicate it to be a case of rape.
- The body of Dawn Emelie Griggs was found in the jungle in a fully clothed condition.
- The clothes were not torn, they were not removed.

- Case of rape has been built up subsequently and it is for this reason that the vaginal swabs and vaginal slides had been retained FSL. as would be evident from its report dated 19.11.2004.
- Further, blood samples were taken from the appellants for the purposes of establishing a case of rape.
- After the receipt of the DNA report of FSL supplementary charge-sheet was filed and a case of rape was also made out and **case against the appellants was a frame-up and was manipulated.**

- All the chance prints were taken from outside the taxi.
- There were no chance prints from inside the taxi.
- Moreover, only eight points have been mentioned with regard to the comparison of the admitted prints and the chance prints .
- As per prosecution case that the appellants strangulated the lady with bare hands, yet no chance prints have been taken from the neck of the deceased.
- Report of the Forensic Science Laboratory dated 19.11.2004, Jyotish Prasad is of O group whereas that of the deceased is of A.
- There is no blood or semen stain on the deceased or any of her articles which belongs to the O group and, therefore, the appellant Jyotish Prasad is clearly not involved.

- No request or necessity for retaining swabs for further DNA analysis and, therefore, the note at the end of the results of analysis was clearly an afterthought and manipulated.
- He also referred to PW-6 (A.K. Srivastava), who, in his cross-examination, indicated that he did not recommend the DNA test nor did he ask the police for getting the DNA test conducted.

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- The samples were retained in the malkhana from 23.03.2004, till 19.04.2004 in an unrefrigerated condition and then sent to FSL
- There was a chance of the samples degrading since they had been kept at normal room temperatures.
- The samples were allegedly tested on 19.08.2004, but the report was only prepared on 19.11.2004.
- Between 19.08.2004 and 19.11.2004, on 01.10.2004, an application had been moved before the learned Additional Sessions Judge indicating that the FSL, Rohini has asked for more blood for conducting the DNA tests.
- The application was allowed by the learned Additional Sessions Judge by an order dated 01.10.2004 itself.
- On 07.10.2004, the blood samples were drawn from the appellants Jyotish Prasad and Ashish at Safdarjung Hospital.

- The same were sent to the Forensic Science Laboratory, Rohini on 08.10.2004 and were also tested on that date, but no DNA analysis has been indicated in the report of 19.11.2004.
- After conducting the test, remnants of the samples were retained by the Forensic Science Laboratory, Rohini except Exhibit 15b, 15c and 15d, which were the vaginal microslides.
- On 28.03.2005, the DNA test was conducted.
- According to the learned counsel, the entire sequence of events leading to the conduct of the DNA test is nothing but suspicious.

- The learned counsel submitted that the vaginal swab was taken on 18.03.2004, whereas the DNA test was conducted in March, 2005 and the possibility of degradation cannot be ruled out.
- With reference to Modi's Medical Jurisprudence and Toxicology, Twenty-third Edition, he submitted that vaginal swabs are prone to degradation in a short time and it is, therefore, essential for the same to be refrigerated.
- In this context, he referred to the testimony of PW-17 to indicate that the vaginal swabs had not been kept in a fridge.
- Consequently, he submitted that the possibility of degradation cannot be ruled out which would make reliance on the DNA report doubtful.

- He contended that an **accused cannot be compelled to drawing of blood samples** which was patently illegal and violative of the constitutional guarantee given in [Article 20\(3\)](#) therefore, the DNA report, which is based on a comparison with the blood samples cannot be looked into.
- For this proposition, he placed reliance on the following decisions:-
- 1) [Goutam Kundu v. State of West Bengal and Another](#):
1993 (3) SCC 418;
- 2) [Rakesh Bisht v. Central Bureau of Investigation](#): 2007 Cri LJ 1530;
and DEATH SENTENCE REF.2/08&CRLA Nos.768/08 & 90/09 Page
No. 31 of 51
- 3) [The State of Bombay v. Kathi Kalu Oghad and Others](#):
AIR 1961 SC 1808.

- Mr M.N. Dudeja, the learned counsel appearing for the State submitted that
- finger prints on the plastic 'glass' (tumbler) found in the baggage of the deceased; finger prints on the taxi, strands of hair of the deceased in the said taxi; soil on the tyre of the said taxi matched with the soil of the place of occurrence; the recovery of gokhroos from the tyres of the said taxi similar to those found in and around the place of occurrence; semen found in the underwear of Jyotish Prasad DNA report conclusively implicating Jyotish Prasad. With regard to the circumstances against the appellant Ashish, Mr Dudeja submitted that in addition to those which are common to both the appellants, Jyotish Prasad and Ashish,

- the following circumstances clearly implicate appellant Ashish:-
- 1) The admissible portion of the disclosure statement of Ashish leading to the recovery of the screw driver, foreign currency and blood stained shirt from near the place where the dead body was found;
- 2) The circumstance of the blood found on the shirt of Ashish matching with the blood of the deceased; and
- 3) The semen stain found on the underwear of Ashish matching with the vaginal slides as per their DNA results.

- Mr Dudeja submitted that the DNA testing was necessary for fastening the identity of the culprits with definiteness.
- The scientific evidence comes in the shape of, first of all, finger prints; secondly, blood and semen samples and, thirdly, DNA analysis.
- The chance prints lifted from the plastic tumbler found in the baggage of the deceased matched with the finger prints of Jyotish Prasad.
- Finger prints of Jyotish Prasad were also matched with the chance prints retrieved from the taxi bearing registration N
- This clearly connected the appellant Jyotish Prasad with the said taxi.

- Thus, from the reports of 19.11.2004, it could not be conclusively determined that it is the appellants and the appellants alone who were involved in the crime. This is where the importance of the DNA tests is made out.
- This leaves no manner of doubt that the appellants were involved in the rape and murder of Dawn Emelie Griggs.

- In the present case, the DNA analysis report does not indicate that the vaginal swab obtained from the deceased had deteriorated to such a condition or, at all, which did not permit them to do DNA profiling in respect thereof.
- In any event, the question of degradation is only limited to the vaginal swab and not to the microslides.

- In his cross-examination, (Dr A.K. Srivastava) has categorically stated that microslides, being slides which are properly dried, have no chance of degradation.
- The DNA profiles of the biological fluids present in the microslides were found **identical** with the profiles from the blood samples of the appellants Jyotish Prasad and Ashish Kumar.
- Thus, the arguments with regard to degradation advanced by the learned counsel for the appellant Ashish cannot be accepted.
- The second issue raised by Mr Navin Chawla was with regard to the question of legality and constitutional validity collection of blood samples at a stage when the trial had already begun in the sense that the charge of murder had been framed though, the charge of rape had not yet been framed.

- Just as taking of a handwriting sample or a voice sample does not mean that the person, whose sample is taken, is compelled to be a witness against himself, so also the person whose blood sample is taken cannot be regarded as being compelled to be a witness against himself.
- When a blood sample is taken, it is taken only for the purposes of establishing the person's identify.
- **The Supreme Court decision in the case of Kathi Kalu (supra)** clearly held that —to be a witness" may be equivalent to "furnishing evidence" in the sense of making oral or written statements, but not in the larger sense of the expression so as to include giving of thumb impression or impression of palm or foot or fingers or specimen writing or exposing a part of the body by an accused person for purpose of identification".

- The Supreme Court further observed that "the giving of finger impression or of specified signature or of handwriting, strictly speaking, is not "to be a witness".
- The expression —to be a witness was held by the Supreme Court to mean imparting knowledge in respect of the relevant facts, by means of oral statements or statements in writing by a person who has personal knowledge of the facts to be communicated to a court or to a person holding an enquiry or investigation.
- The court further observed that —[Article 20\(3\)](#) of the Constitution is directed against self-incrimination by an accused person.
- Self-incrimination must mean conveying information based upon the personal knowledge of the person giving the information and cannot include merely the mechanical process of producing documents in court which may throw a light on any of the points in controversy, but which do not contain any statement of the accused based on his personal knowledge".

- It is obvious that the giving of a blood sample does not, in any way, amount to self-incrimination inasmuch as it is only the identity of the person which is to be established..
- The taking of blood samples of the appellants does not, in any way, in our view, violate the Constitutional mandate of [Article 20\(3\)](#).
- In view of the foregoing, we uphold the conviction of the appellants as made out in the impugned judgment.
- We alter the sentence from a death sentence in respect of both the appellants to a sentence of imprisonment for life insofar as the offence punishable under [Section 302](#) IPC is concerned.

- The other sentences in respect of the other offences awarded by the learned Additional Sessions Judge are not disturbed.
- While upholding the impugned judgment on conviction of the appellants and by modifying the sentence, to the extent indicated above, the present appeals and the death sentence reference stand disposed of.

IN THE HIGH COURT OF PUNJAB AND HARYANA AT CHANDIGARH

- Crl.Appeal No.364-DB of 1998
- DATE OF DECISION: 26.5.2006
- Vikram Singh v. State of Haryana - CRA-D-364-1998 [2006] RD-P&H 3930 (10 July 2006)
- Vikram Singh ...Appellant versus State of Haryana ... Respondent
- CORAM:-Hon'bleMr.JusticeMehtab Singh Gill.Hon'ble Mr. Justice Uma Nath Singh.

- **Dr.K.P.SinghKushwaha (PW2), FSL, Madhuban, Karnal, arrived with his team and a Fingerprint Expert.**
- **They scanned the scene of occurrence thoroughly and carefully**
- Apart from Dr.S.N.Bansal (PW1), the prosecution has examined 32 more witnesses, as the entire prosecution case is based on the circumstantial evidence.
- ***The other prosecution witnesses so examined are Dr.K.P.S.Kushwaha (PW2).***
- ***He inspected the scene of occurrence in the presence of the Investigating Officer in the intervening night of 20/21.2.1996.***

- Dr.G.D.Mittal (PW6) was the Medical Officer, L.N.J.P. Hospital, Kurukshetra.
- He had taken **10 ml. blood** from the person of accused- appellants Vikram Singh and Surender Singh each, with the permission of the Tehsildar.

- On 2.3.1996, he had also got accused Vikram Singh and Surender Singh, medico legally examined by the Medical Officers of L.N.J.P.Hospital, Kurukshetra.
- He also confessed that both of them had committed rape upon the deceased.

- Dr.RahulGarg (PW17) medico legally examined accused Vikram Singh and Surender Singh and found that there was **nothing to suggest that they were incapable of doing sexual intercourse.**

- ***when the dead body of the deceased was recovered from her official residence. Ram Niwas (PW33) had accompanied K.P.S.Kushwaha on 20.2.1996, to the scene of crime.***
- ***He had taken certain photographs of the scene of crime, being Exs.P7 to P9, P13, P15, P16, P19 and P20.***

- There was whitish discharge present in and around vulva, which were taken on **two swabs** and sent for chemical analysis.
- The **vagina admitted two fingers** easily. Hymen was present only in tags.
- ***The Doctor has reiterated that the semen was present in the perineal hair.***

- *Learned counsel for the appellants amongst other contentions submitted that the report of the DNA test placed on file as Ex.DLL, Ex.DLL/1 and Ex.DLL/2 showed that the **DNA recovered from all the exhibits had originated from different individuals.***
- *This is also evident from the evidence of DW8, Dr.G.V.Rao.*
- *Secondly, it was also contended that finger prints of the appellants were not compared by Gurmej Singh (DW1), who had inspected the spot and found the finger prints on three items.*

- *Thirdly, the conviction of the appellants was based only on circumstantial evidence.*
- *One of such circumstances is the foot prints noticed on a leather bag allegedly found lying at the spot by Dr.K.P.S.Kushwaha (PW2).*
- *The impressions were faint and partial.*
- *Though the bag was picked up and taken to the laboratory but it was not duly sealed at the spot, nor was a seizure memo in respect thereof prepared, nor a witness to the seizure was cited.*

- ***The bag was returned to the police station unsealed on 23.2.1996.***
- ***The bag was then sent to Dr.S.K.Nagpal (PW4), who, later on, submitted his report (Ex.PJ) and concluded that the foot prints found on the bag could be that of shoes allegedly recovered from the accused-appellants at the time of their arrest.***
- ***According to learned counsel, the opinion as such does not appear to be conclusive in nature and was of no use to the prosecution.***

- **It is also established that the accused committed robbery in the house; rape on the deceased, and also her murder.**
- ***As regards the scientific evidence with regard to the trespassing into House No.F-2, the scientists from Forensic Science Laboratory, Madhuban, were immediately called through ratio message.***
- ***They inspected the scene of occurrence and collected scientific evidence.***
- ***Dr.K.P.S.Kushwaha (PW2), noticed faint and partial shoe impressions on the floor vide photograph (P13). Its negative is Ex.P14.***

- *He also noticed a trail of blood showing that the body was dragged out of the drawing room after inflicting the injuries.*
- *This is shown in the photographs (Exs.P-15 and P- 16). Their negatives are Exs.P-17 and P-18.*

- *That apart, one leather bag lying on the floor also had faint and partial shoe impressions as per photographs (Exs.P-19 and P-20). Their negatives are Exs.P-21 and P-22.*
- *The bag was taken to the laboratory for taking a detailed photograph.*
- *Tracing of shoe impression from the floor was also made. The entire exercise was completed on the intervening night of 20/21.2.1996.*

- ***The bag was returned to the Police Station, Thanesar, on 23.2.1996, after fixing transparent tape on the surface.***
- ***It was done immediately before collecting other evidence from the spot.***
- ***Although the foot prints were taken on the intervening night of 20/21.2.1996, but the shoes, being Ex.P40/1-2 and Ex.P41/1-2, were seized from the accused on the date of their arrest, i.e., 1.3.1996.***

- *Thus, there was no chance of tampering with and padding out by the Investigating Officer.*
- *Tracings and the foot prints collected during the intervening night of 20/21.2.1996, tallied with the shoes taken into possession on the arrest of accused-appellants on 1.3.1996.*
- *Photographer, Ram Niwas (PW33) also proved the photographs taken by him.*

- ***S.K.Nagpal (PW4), has categorically said in his cross-examination that Exs.P37 and P38 are the foot prints of the shoes (Exs.P40/1 and P40/2), taken out of Parcel No.13 and Exs.P36 and P39 are the foot prints of the shoes (Exs.P41/1 and P41/2), taken out of Parcel No.14.***
- ***The report submitted by this witness is Ex.PJ.***
- ***Thus, it appears that accused-appellants trespassed into the house of the deceased and committed the crime.***

- ***As regards the evidence of Dr.G.V.Rao (DW8) on the question of DNA test for the purpose of establishing the identity of the accused***
- ***it appears that the semen slides and the swabs along with two under-wears of these two accused were sent for DNA testing.***
- ***DNA report (Ex.DLL, Ex.DLL/1, Ex.DLL/2) was not produced before the Court for placing reliance by the prosecution, as the report was not signed by this witness, nor did it bear the seal of the institution.***
- ***Dr.G.V.Rao (DW8) has only signed the forwarding letter and not the report.***

- ***He explained that he did not think it necessary to sign the report.***
- ***That apart, he has also admitted that he did not have the letter of authorisation (to receive, examine and opine) at that time with him.***
- ***He has further stated that this fact is also not mentioned by him in his report (Ex.DLL).***
- ***Thus, it is relevant to note that the samples were sent to another person but strangely enough the report was submitted by Dr.G.V.Rao.***
- ***Further, the samples were taken in February, 1996, and they were examined by the FSL, Hyderabad, in December, 1996.***

- ***This is further corroborated by the fact that DNA samples of the blood of accused-appellants Vikram Singh and Surender Singh did not tally with their own DNA samples of their seminal stains.***
- ***Our finding as such also gets support from para 3.2 (Sample Preservation) of the book 'DNA in Forensic Science' by J.Robertson, A.M.Ross& L.A. Burgoyne, wherein the methods of preservation have been mentioned as under:-***

- ***The safest and simplest procedure for preserving samples is freezing.***
- ***. The best temperature to store biological materials for an unlimited period is at -70 degree C or over liquid nitrogen.***
- ***For a period in the range of a few weeks it can be stored at -2 degree C preferably in frost free freezer.***
- ***After a sample has been frozen, it should not be thawed and frozen repeatedly since this will promote cell breakage and facilitate DNA degradation."***

FAILURE TO IDENTIFY ACCUSED FROM SEMEN ON
SLIDE
HIGH COURT MADRAS

- Victim was a married woman **raped by 4 persons** on **27/06/1997**.
- **Medico legal examination conducted on 29/06/1997**, one vaginal smear on slide and pubic hair were taken.
- All the accused were arrested and potency test was conducted on 01/07/1997. All were found potent.
- On 04/07/1997, petitioners (Accused) filled application u/s 54 CrPC **for taking Blood and Semen sample** and send the same to Director Molecular Biological Research Institute, Hyderabad to conduct DNA test and compare the same with that of vaginal smear.

- On 15/07/1997, counter application was filed by Victim that the accused have already been medically examined and declared potent, hence prayer for collection of the samples is not reasonable.
- Learned magistrate sent requisition to Regional Forensic Science Lab, Thanjavur, to know whether DNA test could be possible as requested by the petitioner (Accused)

- Reply from FSL stated that Vaginal Smear taken after 2 days of the rape may not be a true representative sample of seminal residues and may not be useful biological specimen for reliable analysis.
- Accordingly, magistrate dismissed the application of the accused stating that test is not possible and would not give fruitful result.
- Further, the presence of semen on the vaginal part need not be a must, since mere penetrative would amount to rape.

PRAYER FOR COLLECTION OF THE SAMPLES OF BLOOD FOR
ANALYSIS BY GOVERNMENT AND PRIVATE EXPERT
HIGH COURT GUJARAT

- The accused filed review petition in the high court for seeking permission to engage Forensic DNA Examiner of their own choice and also for directing the investigating agency to see that the expert team in government lab as well as DNA expert team engaged by them should jointly conduct the DNA test.
- The petitioner also prayed that at the time of taking blood samples for conducting DNA test, the DNA examiner engaged by them may be permitted to collect the samples simultaneously for conducting DNA test and to give their independent opinion.

- The counsel engaged by the petitioner pleaded that if a proper care is not taken while drawing the blood sample and testing the same along with crime exhibits, the testing material from crime exhibits may vanish because of its smallness and use in testing processes and the accused may not get a chance to rebut the finding through re-testing, if they so desire in their defence.
- The counsel also pleaded that there should not be any objection on the part of respondent (state) in permitting the accused to engage their own expert for the entire process.

- The counsel expressed apprehension that if sample is not collected and/or analyzed properly along with crime exhibits, the same could not be recalled into question and accused had to face trial.

- Therefore, they should at least be permitted to observe the process of drawing of sample from the accused body and the process of examination in the forensic science laboratory at least from outside of a window glass.
- It is true that the high profile test is considered irrefutable proof of identification and therefore, it is necessary to establish standard of analysis and accuracy in the level of Statistical Calculations.
- The laboratory performing such test should be submitted to Double Blind Test in which neither the Lab, nor the technician know what the samples are to ensure that they are working with acceptable quality control.

- The counsel also quoted some part of a book published by Pearson Education having heading “Understanding Biotechnology” from chapter 10 titled “Forensic DNA” where in author has stated that
- “Considering the DNA analysis is a powerful identification technique it should be used carefully.
- The sensitivity level of many DNA test is so high the cells from technician hand or from sneeze could contaminate the sample

- Therefore, care in the collection, custody and manipulation by the biological sample is of great importance for the validity of this analysis.
- Finally, human beings can make mistakes.
- Technician can mislabel a flask, change codes, change names and so on due to many possible errors.
- Many laboratory use double reading in each step of analysis.
- They also save part of sample for possible re- analysis.
- Procedure used for collection, storage and transportation of sample used in the standard serology will suffice well for samples used in DNA testing.
- Care should be taken to seal and label samples properly to ensure the future integrity and identification of the samples”

- Expressing apprehension of vanishing the entire crime exhibit it is argued that where there is no scope of duplicate tests of a particular crime exhibit, the prayer of the petitioner of being innocuous, should be accepted and petitioner may be permitted to keep their DNA forensic examiner present right from the stage of collection of blood sample till the test analysis is performed.

- The learned PP strongly resisted the submission by defense counsel and pointed out that there is no scope of error, and the apprehension expressed by the defense is w.r.t. methods earlier adopted by FSL because in earlier years RFLP technology was used.
- At present the latest PCR based technology for STR analysis is used so the apprehension expressed by the defense counsel is only relevant if any earlier or outdated technology is sought to be adopted for analysis or test in the present case.

- All the methods/kits (instruments etc) used are well validated for forensic identification purpose and in the present case the analysis which is the latest one ie STR is to be applied.
- The STR technique is latest one and is human specific, fast and easy to standardize.
- The technique is automated which ensures better accuracy and reproducibility.
- The interpretation of the result is also quite simple and all activities are being done and observed mainly by computers.
- Therefore, possible chances of error are eliminated.

- The court did not accept the plea of the petitioner to appoint an independent observer while conducting the DNA test in FSL saying that **it would demoralize the scientists working there.**
- **The court also informed that expert who give their opinion are covered under 293 CrPC and their reports are also authentic.**
- If an independent expert is allowed in one case, there would be requests from many cases examined by FSLs which interfere with their output.
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HIGH COURT MADRAS -2005

- **Issue involved:**
- Prayer for re-examination from another laboratory after receiving DNA record from state FSL.
- Husband (Petitioner) married the respondent on 19/11/1995.
- A female child was born to the couple on 24/08/1996 and **second female child was born to the couple on 18/04/1999, for which the husband denied the paternity.**
- He said, the wife did not return to matrimonial house after the first child was born, so the second child is not his and she might have developed illicit relations with some other person.
- On grounds of adultery husband filed for divorce.

- Denying the averments, the wife filed counter statement contending that both babies were born to the petitioner/husband.
- A report was submitted by state FSL confirming the paternity ie the second child was also of the petitioner.
- The husband filed another application to determine the parentage of the second female child.
- According to him the earlier DNA report confirming the paternity was obtained by the wife influencing the scientific experts through one of her relatives, who is working in the Forensic Science Department.
- According to the husband, if that report is taken into consideration, his contention in the main petition would be negative.
- Hence, husband filed application to take three blood samples of wife, child and his and send to three different centers ie CCMB, CDFD and CFSL, Kolkata.

High court

- State FSL had conducted elaborate DNA test and an elaborate report was furnished.
- On the basis of DNA test report, the scientific Expert has given his opinion that “the cumulative probability of paternity of the alleged father Mr. Sakthivel for being the father of the child Archana is 99.9207%.
- the cumulative chance of Exclusion of any random man from paternity of the child Archana is 99.99999988%”.
- The opinion is supported by the comprehensive analysis of the results.
- The well-considered analysis and the report there on can not be doubted by accepting the contention raised by the husband that the result was obtained by influencing the scientific experts in FSL.
- In any event, the DNA test is the only piece of evidence in support of the paternity of the child.

- If the samples are sent to three different places, three different reports might lead to confusion.
- The petitioner cannot seek to send blood samples for DNA test for the second time which would lead to unhealthy practice where the parties would be repeatedly seeking to send the samples till they get a favorable report.
- Such request of the husband to send the blood sample of the spouse for DNA test for the second time cannot be acceded to.

Tandoor Murder Case -1995

- This is the **first case in India** where DNA fingerprinting was used for investigation.
- Former Congress worker Mrs. Naina Sahni was shot dead by her husband Sushil Sharma as he suspected Naina of having an extramarital relationship with Matloob Karim (Matloob and Naina were classmates and fellow Congress workers)
- On 2nd July 1995, Sushil came home and saw Naina talking on the phone and consuming alcohol.

- Sushil redialed the phone to find Matloob on the other end.
- Enraged, he fired three shots from his licensed revolver.
- While one bullet pierced through Naina's head, the other hit her in the neck.
- The third bullet missed her and hit the airconditioner.

- Naina died on the spot.
- Later he bundled the body of Naina into his Maruti car and stuffed it in the tandoor (oven) of the restaurant
- During postmortem, doctors detected two bullets in head and neck region, opined cause of death due to firearm injuries.
- The police seized his revolver and blood-stained clothes and sent them to Forensic Laboratory.

- *Charred remains of a body in the tandoor kitchen and blood samples of Naina's parents, MrHarbhajan Singh and MrsJaswantKaur, and sent them to Hyderabad for DNA test.*
- *DNA from muscle pieces attached to her charred bone were compared with that of her parents and sister. It was established that the burnt body in tandoor was of MrsNainaSahni.*

- **May 9, 1996:** Trial court frames charges under section 302 (murder), 120-B (criminal conspiracy) and 201 (destruction of evidence) against five persons.
- **January 1999:** Court records evidence in the case.
- **November 3, 2003:** Court convicts Sharma.
- **November 7, 2003:** Sharma sentenced to death and Keshav (manager of restaurant) gets seven years rigorous imprisonment.

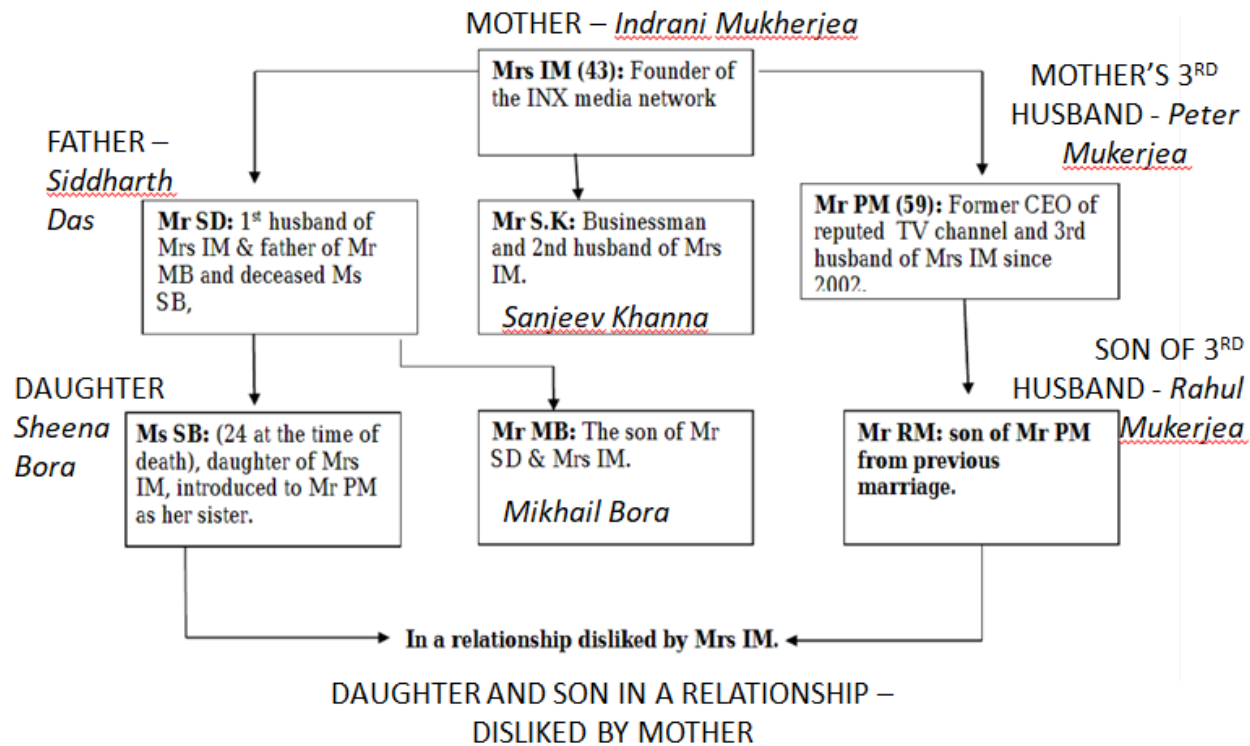
High Court

- **December 2003:** Sharma moves Delhi High Court challenging trial court judgment.
- **February 19, 2007:** Delhi High Court upholds death sentence to Sharma.

Supreme Court

- **October 7, 2013:** While pronouncing the verdict , the Supreme Court stated
- that the chronology of events would indicate that the accused and the accused alone had committed this brutal murder.
- Justice Ranjana Prakash Desai while pronouncing the verdict said it is not a crime against society, but it is a crime committed by the accused due to strained personal relationship with his wife.
- **Final Verdict:**
On 8 October 2018, Sharma was sentenced to life imprisonment by the Supreme Court.

Sheena Bora Case-2012



- **Evidence**

- From the place Sheena Bora's body was dumped, the police recovered some bones, a skull and a suitcase.
- Forensic Experts were not able to extract DNA from the molars but from long piece of femur bone.
- The DNA profiles were checked and re-checked thrice using different approaches to weed out any error.
- Usually, after being burned and being left in the open to environmental degradation, it's not easy to determine the DNA but one of the experts explained how due to location and weather condition, the DNA sample survived otherwise if the DNA was contaminated, the acquired result would be incomplete.

- The skull found was estimated to be of a female aged 22-25 years.
- Height estimate from the long bone (femur) was between 153-160 cm.
- DNA markers were found to be matching between Sheena and Indrani confirming the relationship.

- **Four Steps for DNA testing-**
- **FIRST DAY:** Part of Femur(thighbone) of the skeletal remains was crushed. Bone cells were separated by chemically treating them to remove calcium. Calcium interferes with DNA testing (takes24hours)
- **SECOND DAY:** Nuclear DNA was extracted separately from bone and bloodcells of IndraniMukerjea (takes24hours)
- **THIRD DAY:** DNA profiles of bones and blood were obtained
- **FOURTH DAY:** Fifteen DNA markers for the bone and blood samples were compared.
- Fifteen universally specified DNA markers on the bone of the unknown sample and the blood sample of Indrani matched.
- The sixteenth marker is Amelogenin, which determines the sex of the sample.
-

PriyadarshiniMattoo Case – 1996

- 25-year-old law student who was found raped and murdered at her house in New Delhi on 23 January 1996.
- On 17 October 2006, the Delhi High Court found Santosh Kumar Singh guilty on both counts of rape and murder and on 30 October of the same year sentenced him to death.
- On 6 October 2010, the Supreme Court of India commuted the death sentence to life imprisonment. Santosh Kumar Singh, the son of a Police Inspector-General, had earlier been acquitted by a trial court in 1999, and the High Court decision was widely perceived in India as a landmark reversal.
- This decision went in favor because the facts were not presented correctly in the lower court

- **Trial Court Judgment**
- Delivering the ironical and widely criticized judgment in the trial court proceedings in 1999, the Additional Sessions Judge. G.P. Thareja said of Santosh, that though he knew that "he is the man who committed the crime," he was forced to acquit him, giving him the benefit of doubt.
- In a 450-page judgment the judge came down heavily on the role of Delhi Police; "There has been particular inaction by Delhi Police", he said, while commenting that the accused's father may have used his official position to influence the agencies. "The influence of the father has been there in the matter and there was deliberate inaction" (at the time his father was second in command of the police forces in Delhi).

- The judge added that the **CBI fabricated the DNA test in the rape case as it was not obtained in accordance with the judicial procedure and could not therefore be admitted in evidence in view of Section 45 of the Indian Evidence Act.**
- The "state had failed to bring home the charge of rape against the accused", and while indicting Santosh as "the man who committed the crime", the judge was constrained to acquit him, because of "the benefit of doubt".

- **High Court Appeal**
- On 31 August 2006, six years after the initial appeal by CBI, justices RS Sodhi and PK Bhasin took up the case on a day-to-day hearing basis, which is extremely rare in India. Judgment was reached within 42 days which is quite unprecedented.
- “ The trial judge acquitted the accused amazingly taking a perverse approach. It murdered justice and shocked judicial conscience. ”
- In particular, the verdict held that there were no lacunae in the DNA testing, and that the combination of the forensic and circumstantial evidence was clinching. However, the bench agreed with the trial's court observation that police were reluctant to act on repeated complaints of harassment and stalking against Singh as his father was the senior IPS officer (now retired) Director-General of Police J.P. Singh.

- **Death penalty**
- As recommended by the Central Bureau of Investigation the death penalty was awarded to Santosh Singh on 30 October 2006.
- Pronouncing its verdict, the court said the mitigating circumstances under which leniency was begged for Santosh was not enough and the brutal rape and murder does fall in the bracket of "rarest of rare" cases. Santosh was sitting just five-feet away from the jam-packed court. The court had convicted Santosh of the crime earlier that month.
- The two-judge bench, comprising Justice R. S. Sodhi and Justice P. K. Bhasin, heard both sides before pronouncing the verdict.

- The court said Santosh Singh had been given many chances to reform by the police when Priyadarshini had complained that he was stalking her. However, he didn't mend his ways and eventually raped and killed her.
- "In spite of repeated warnings by the police and his undertakings to them, he went about committing the most ghastly act. The act itself sent ripples in society and showed how insecure a citizen can get against this kind of a person," the Bench remarked

- **Supreme Court appeal**
- 19 February 2007. Santosh Singh appealed against the death penalty sentence.
- The defense lawyers of the accused Santosh Singh questioned the validity of the DNA report, one of the main causes for which he was given the benefit of doubt in the Trial court.
-
- In October 2010, the Supreme Court upheld the conviction of Santosh Kumar Singh but reduced the death sentence to life imprisonment.
-

DNA testing mandatory in all rape cases, says court

New Delhi, Sun Jan 29 2012

- Noting that DNA testing should be made mandatory in all sexual assault cases, a Delhi court sentenced five persons to life imprisonment for abducting and gangraping a mentally-challenged minor.
- Even though guidelines for the collection of DNA samples from rape victims were included in the Code of Criminal Procedure (CrPC) over five years ago, the procedure is still not being followed by many city hospitals and forensic labs.

- The court noted that many still opt for the old method of blood grouping, which makes it hard for investigators to establish the liability of the accused as more than 25 per cent of the population may have the same group of blood and semen.
- "It has therefore become necessary for investigating agencies and also for the State to ensure that in cases of sexual assault, particularly those involving gangrape, or where the identity of the accused is not known to the victim, or where the victim is a child, DNA profiling is made mandatory.

- I am hopeful that with due intervention of senior officers of State and Police, the existing scientific technology shall be put to its best utilization, so as to ensure that the guilty are not let off and the innocent do not suffer," Additional Sessions Judge Kamini Lau said.
- The court's observations were made while sentencing Mukesh, PrabhansYadav, Deepak, Ravinder Kumar and Rajeev, who were held guilty of kidnapping and raping a minor.

- "Across the world, it has been found that perpetrators are much more likely to plead guilty when DNA forensics are used, and the convictions are much higher than without DNA forensics, saving the court and the police time and resources,"

(President, Gordon Thomas Honeywell-Governmental Affairs, Tim Schellberg)

- "Fair and competent investigation in a criminal case is the backbone of criminal justice in any society. Collection of DNA evidence is equally important from the perspective of the prosecution and the defence.
- Hence, collection of DNA evidence, in appropriate cases can be said to be following Article 21 of the Constitution of India which guarantees to every person the fundamental right to life and liberty,"

(Senior Advocatet Delhi High Court, Vivek Sood)

- "If India has to send a strong message to criminals and instill in them the fear of law, we have to ensure that evidence collection is strengthened. Crime scenes must be protected, crucial evidences collected, scientifically examined and analysed.
- We need to realise that DNA profiling offers one of the most reliable forensic tools in solving cases of sexual assault and rape,"
(Senior Advocate at Supreme Court and President of Shakti Vahni, Ravi Kant)

Priyadarshini Mattoo Rape & Murder case



Santosh Kumar Singh

Priyadarshini

- Priyadarshini was a law student in Delhi who was raped and murdered in her house in New Delhi on 23rd Jan.1996.
- She was repeatedly stalked by one Santosh Kumar Singh son of J.P.Singh, IG, Pondicherry.
- Priyadarshini made several complaints to the Delhi Police about the harassment.
- She was provided with a head constable as security officer. On the fateful day the security officer was asked to be present between 5 to 6 pm by her.
- Before the security officer arrived, the accused entered her house by force, raped and killed her .

- The security guard near the house found the dead body under the cot.
- Father of the deceased approached CBI as he had no faith in the investigation by Delhi Police.
- A case was registered against the accused u/s 302 & 376.
- DNA samples were collected from the body of the deceased at the time of PM.
- PM report ruled out rape but DNA samples sent for analysis confirmed rape on victim.

- The security guard near the house found the dead body under the cot.
- Father of the deceased approached CBI as he had no faith in the investigation by Delhi Police.
- A case was registered against the accused u/s 302 & 376.
- DNA samples were collected from the body of the deceased at the time of PM.
- PM report ruled out rape but DNA samples sent for analysis confirmed rape on victim.

- The trial court rejected DNA report saying chain of custody of material was compromised and therefore there was likelihood of tampering the samples.
- The court further declared that the experts were not competent to conduct DNA test.
- The trial court acquitted the accused giving him benefit of doubt.
- On 21st Feb. 2000 CBI appealed against the judgment of the trial court in the Delhi High court.
- According to the High Court, 'apart from shoddy investigation by the Police, the clinching evidence was that the DNA test proved rape.

- The Court declared that Santosh Kumar Singh was guilty beyond any doubt of impeachable evidence against him and convicted him u/s 302 & 306 IPC **sentencing him to death.**
- On 19th Feb. 2007 the accused appealed in the Supreme Court against the judgment.
- The Apex Court Bench confirmed the accused as guilty of the crime, however reduced the penalty of death to **life imprisonment.**

- The **fractured visor** of helmet recovered from the accused had blood stains indicating that the same was used to cause 19 injuries on the victim.
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Supreme Court of India Criminal Appeal 611 of 2003



Swami Premananda



Aruljothi

Issue : whether the guardian of the Ashram, Swamy Preamananda was the father of the fetus or not?

- One of the girls in the Ashram was repeatedly raped under duress, consequently she became pregnant.
- The Police registered a case on the Swamy on a complaint.
- The victim aborted the fetus.

- The dead fetus and the blood sample of the Swamy were analyzed at CCMB by Dr.Lalji Singh.
- He opined that ‘when DNA profiles of Premananda was compared with the tissue from the fetus and blood from victim, it is seen that every band present in the fetus is fully accounted for either being inherited from the mother or from the alleged father.
- The alleged father Premananda and mother Aruljothi are, therefore, the biological parents of the dead fetus’.

- The defense engaged a British Scientist to counter the report of Indian DNA expert
- XXX.. If there is any contamination occurred, then there would not have been proper matching of all the bands.
- Hon'ble Supreme Court rejected his arguments as the DNA profiling test was repeated in a London laboratory but he was not attached to the laboratory nor he had conducted the test himself.
- The British expert further said that 'on behalf of the defense he was engaged to cross examine the Indian expert'.