

The Hidden Mother Case

In 2015, a devastating bus accident left a toddler named **Lia** as the sole survivor. She was rescued from the wreckage without identification, and authorities placed her in temporary foster care. Years later, two women—**Dr. Evelyn**, a pediatrician who had been volunteering during the rescue, and **Rosa**, a farmer's wife from a nearby province—both claimed to be Lia's biological mother.

A third woman, **Carla**, an overseas worker, came forward after seeing the story on the news, claiming that her baby had been kidnapped from a hospital in the same region during that period.

To resolve the dispute, the court ordered **maternity testing** through **ABO blood typing** and **DNA profiling (13 STR loci)**.

Person	ABO Type
Child – Lia	AB
Alleged Mother 1 – Dr. Evelyn	A
Alleged Mother 2 – Rosa	O
Alleged Mother 3 – Carla	AB
Biological Father – Miguel	B

Locus	Child – Lia	Biological Father – Miguel	Mother 1 – Dr. Evelyn	Mother 2- Rosa	Mother 3 – Carla	Allele Frequencies (Observed)	Maternity Index
D3S1358	15,16	16,17	15,17	14,15	15,16	14:0.18; 15:0.29; 16:0.27; 17:0.12	
vWA	16,18	16,18	15,18	14,16	16,18	14:0.20; 15:0.21; 16:0.28; 18:0.19	

FGA	21,24	21,23	22,24	24,25	24,23	20:0.10; 21:0.17; 22:0.15; 23:0.12; 24:0.24; 25:0.11	
D8S1179	12,14	14,15	13,14	10,12	12,14	10:0.09; 12:0.26; 13:0.19; 14:0.23; 15:0.11	
D21S11	29,32	29,30	29,32	30,32	29,32	28:0.07; 29:0.18; 30:0.15; 31:0.16; 32:0.20	
D18S51	13,15	15,17	13,14	12,13	13,15	12:0.12; 13:0.22; 14:0.19; 15:0.21; 17:0.08	
D5S818	11,12	12,13	10,11	11,12	11,12	10:0.13; 11:0.28; 12:0.31; 13:0.07	
D13S317	8,11	9,11	9,11	8,11	8,11	8:0.30; 9:0.10; 10:0.12; 11:0.27	
D7S820	9,10	9,11	9,11	8,10	9,10	8:0.24; 9:0.26; 10:0.25; 11:0.08	
TH01	6,9.3	6,9.3	6,9.3	6,7	6,9.3	6:0.33; 7:0.20; 9.3:0.21	
TPOX	8,11	8,11	11,12	8,11	8,11	8:0.32; 11:0.29; 12:0.07	

CSF1PO	10,12	11,12	11,12	10,11	10,12	10:0.25; 11:0.18; 12:0.31	
D16S539	11,12	12,13	12,13	11,11	11,12	9:0.09; 11:0.29; 12:0.30; 13:0.08	

1. Who is/are the possible mothers based on the blood types? Why?
2. Who is/are excluded as mother? why?
3. Encircle the obligate maternal allele in the column of Lia's DNA profile.
4. Encircle the obligate alleles present in each putative mother's profile.
 - a. What does it mean if the putative mother does not have all or some of the obligate maternal allele? Why?
 - b. What does it mean if a putative mother has all the obligate maternal allele? Why?
5. Compute the Maternity Index (MI).
 - a. How is this computed?
 - b. What does the MI signify?
6. Compute the Combined Paternity Index (CMI).
 - a. How is this computed?
 - b. What does CMI signify?
7. Derive the Probability of Maternity and convert it into a percentage format.
 - a. How is this computed?
 - b. What does PoM signify?
8. Prepare a Legal Memorandum based on the facts and results of the Maternity test.