



MICROPENIS

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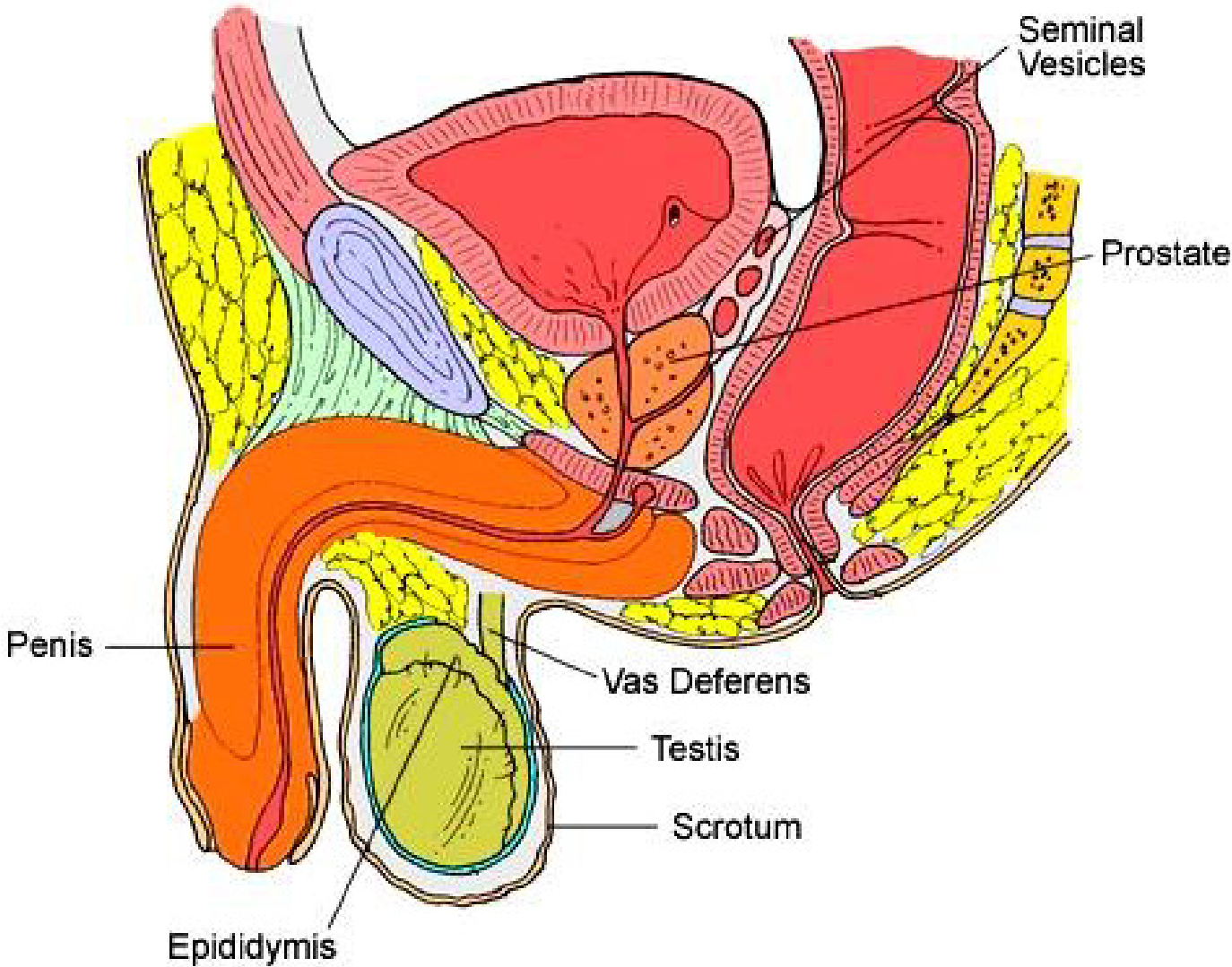
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Introduction

- **Definition**
 - a stretched penile length of more than 2,5 SD below the average for age
- This equates : < 2 cm at birth or
< 4 cm before normal puberty
- **Measure** : the stretched penile length is measured by taking a wooden spatula and pressing it alongside the penis onto the pubic bone

Age	Penis (stretched length)	
	Mean ± SD	Mean – 2,5 SD
Newborn		
30 weeks	2,5 ± 0,4	1,5
34 weeks	3,0 ± 0,4	2,0
Full-term	3,5 ± 0,4	2,5
0-5 mos	3,9 ± 0,8	1,9
6-12 mos	4,3 ± 0,8	2,3
1-2 years	4,7 ± 0,8	2,6
2-3 years	5,1 ± 0,9	2,9
3-4 years	5,5 ± 0,9	3,3
4-5 years	5,7 ± 0,9	3,5
5-6 years	6,0 ± 0,9	3,8
6-7 years	6,1 ± 0,9	3,9
7-8 years	6,2 ± 1,0	3,7
8-9 years	6,3 ± 1,0	3,8
9-10 years	6,3 ± 1,0	3,8
10-11 years	6,4 ± 1,1	3,7
10,1-12,0 years	5,2 ± 1,3	3,3
12,1-14,0 years	6,2 ± 2,0	1,2
14,1-16,0 years	8,6 ± 2,4	2,6
16,1-18,0 years	9,9 ± 1,9	5,7
18,1-20,0 years	11,0 ± 1,1	8,3
Adult	13,3 ± 1,6	9,3

Male Reproductive Tract



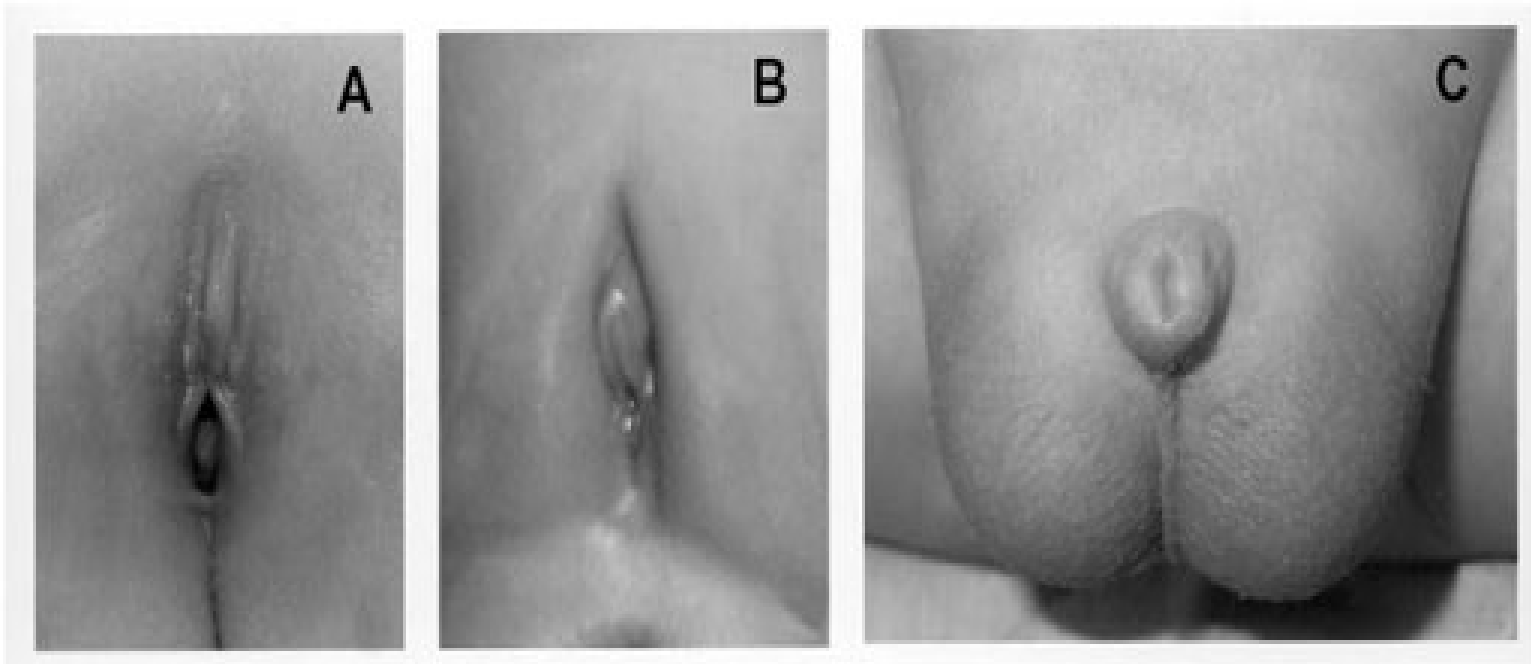
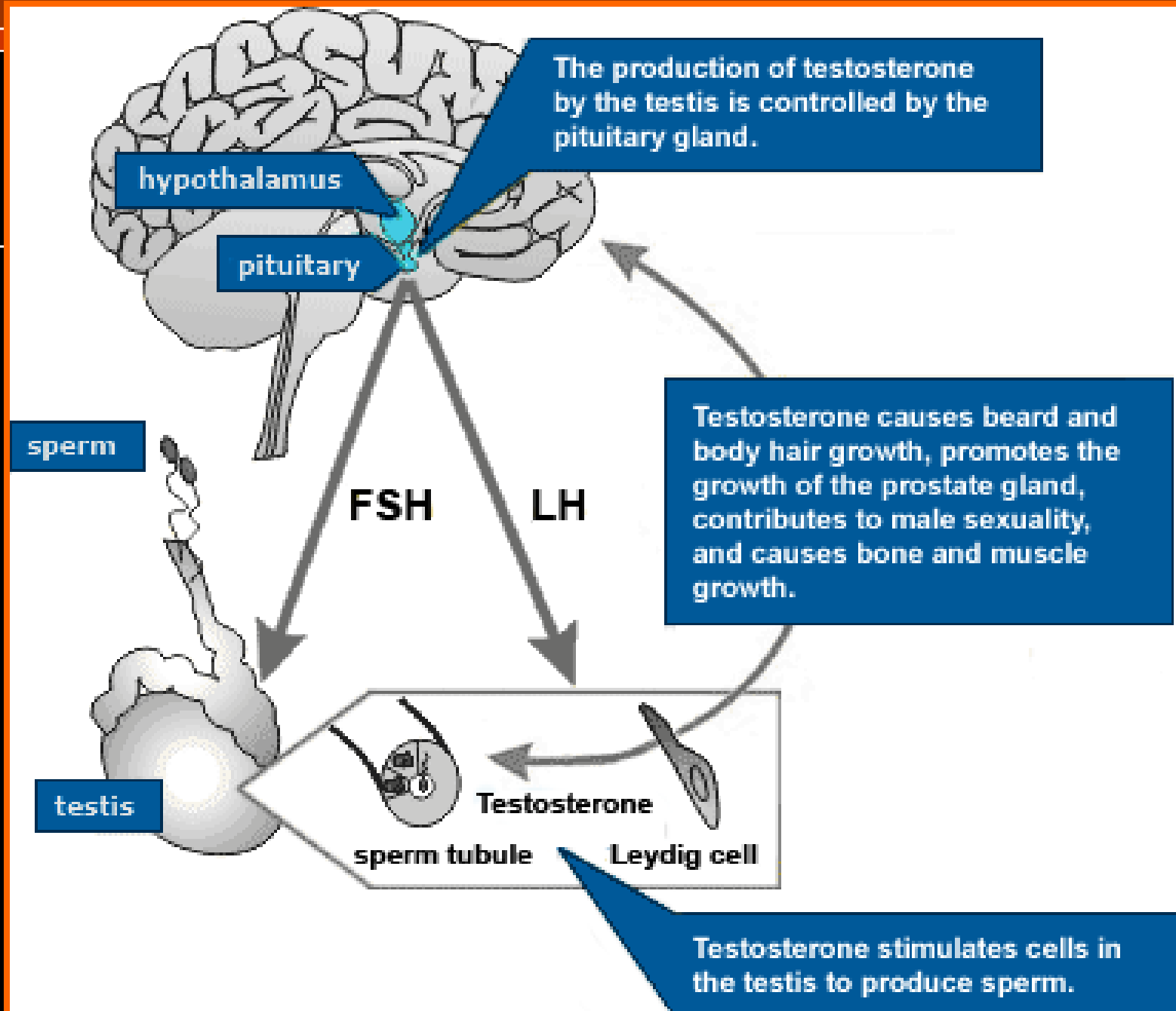


Figure 2 – A) Abnormal location of the genital tubercle of the index case; B) Normal female external genitalia; C) Partial penoscrotal transposition and micropenis of the patient's brother.



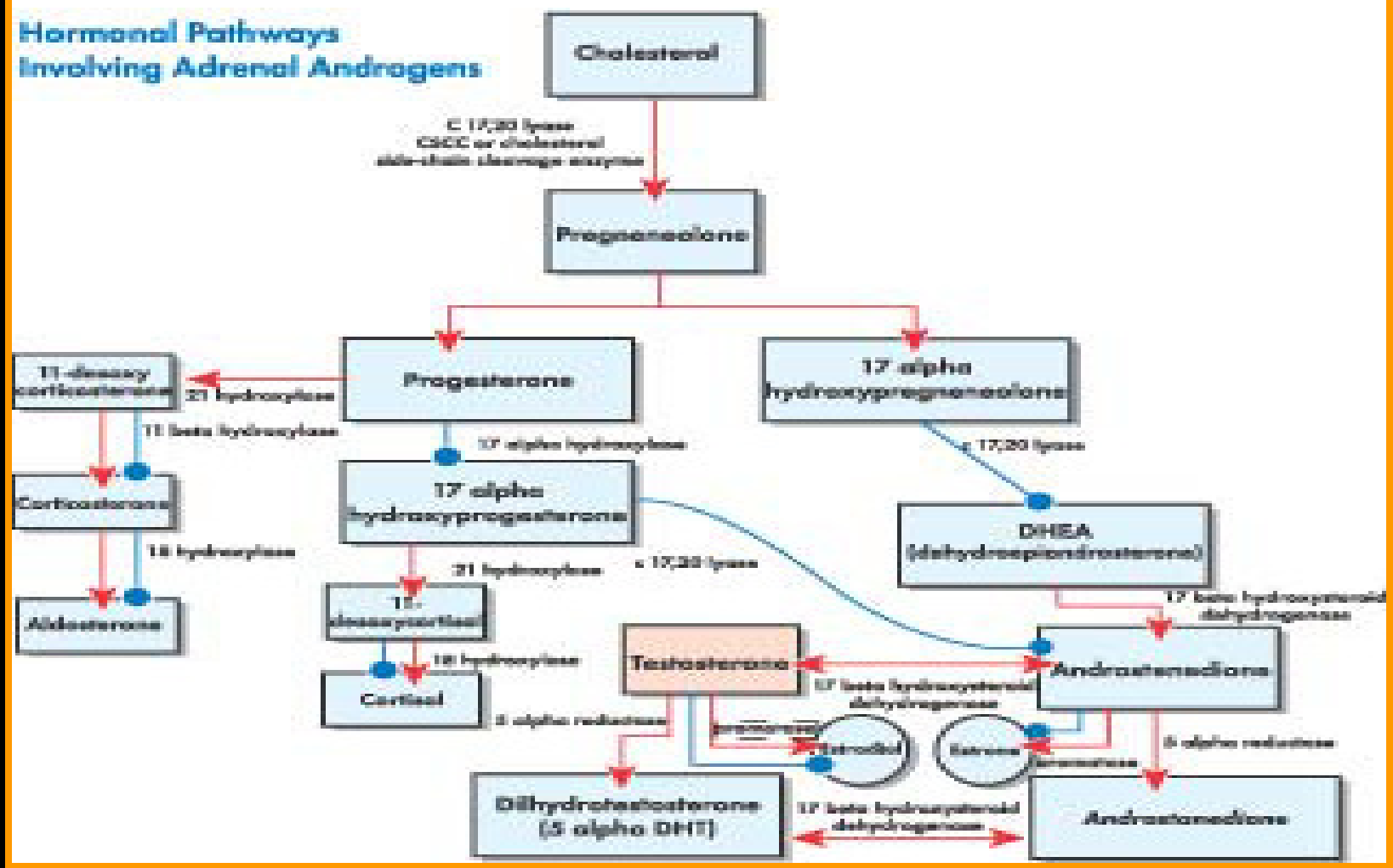
Etiology

- ❑ Hypogonadotropic hypogonadism
- ❑ Growth hormone deficiency
- ❑ Other pituitary deficiency
- ❑ Primary hypogonadism
- ❑ Incomplete forms of the androgen insensitivity syndrome



Red lines  are pathways blocked by Cytadren
 Blue lines  are pathways blocked by Mifepristone

Hormonal Pathways Involving Adrenal Androgens



Diagnostic

- T4 and TSH → to exclude pituitary dysfunction
- Serum cortisol
- Growth hormone level
- Testosterone serum level
- Serum LH and FSH
- GnRH test → to evaluate testicular function and 5 α -reductase activity
- hCG test

hCG test

Procedure

- Give IM hCG 1000 units → infant
2000 units → older child
on day 0, 1 and 2, take blood samples on day 0 and 3
- Prolonged cryptorchidism or where testicular damage
→ give hCG 1000 units 2x/weeks for 3 weeks, and take blood
on day 0 and 48 hours after the last injection.

Interpretation

- If testosterone ↑ → testicular Leydig cell function intact
- A failure of a rise DHT → 5 α -reductase deficiency
- The differential rise of testosterone to DHAS and androstenedione → defect in testosterone biosynthesis

Therapy

- **Injections of testosterone esters or topical testosterone 3-4x IM every 3 weeks
dose : 25 mg/x /IM → infant and young children
25-30 mg → pubertal age**
- **If micropenis is associated with cryptorchidism → hCG or gonadotropins for 2-3 months**
- **If there is poor response → augmentative surgery or gender reassignment.**



Thank You