"COMPLETE VERTICAL CLEFT OF THE GLANS"

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Complete vertical cleft of the glans penis is a very rare congenital deformity. Very few cases have been reported in the world literature. We have not been able to trace a report of this entity in Indian literature hence this case is being reported.

Case History

A young healthy man of 22 years reported that he had some deformity of penis. On examination the prepuce was complete and both the testis were normal. When the prepuce was retracted back it was noticed that the glans penis was cleft right upto the coronal sulcus. External urinary meatus was situated at the coronal sulcus on the dorsal side and strips of urethral mucosa could be seen . The patient did not have any other congenital abnormality. There was no history of penile trauma, venereal disease or operation. The urinary stream was of normal force and caliber. There was no family history of urogenital anomalies.

Review of Literature

In 1914, Rosenwald[1] reported a case of complete vertical cleft of the glans penis. In this patient the glans penis was furrowed on the upper and lower surfaces to the coronal margin but the frenulum was joined to the ventral aspect of the left half. In 1897, Hofmoki[2] described a horizontal glanular cleft but offered no explanation for its formation. Harry et al (1972)[3] reported a case of complete vertical cleft of glans penis in a 72 years old white man. In 1978, another case was reported by Leff[4] et al.

Discussion

In the seventh week of intrauterine life the genital tubercle grows longer to develop into a phallus and glans. The line of coalescence of the urethral groove can be seen as a deeply pigmented median raphe. If this line of closure is incomplete, Hypospadias, the commonest deformity of the male genetalia occurs. If the groove, completely divides the penile shaft an uncommon anomaly develops which is known as double penis (Compbell 1951)[5]. In our case only the glans penis is cleft, and the urethral mucosa is present on both sides of cleft glans on the dorsal side, which is suggestive of the fact that this vertical cleft glans may still represent the mildest form of epispadias (Leff et al). Three plausible developmental explanations for the anomaly described are :

1. It is a manifestation of the bilateral derivation of the genital tubercle.
2. It is the result of excessive invagination of surface epithelium normaly forming the distal glandular urethra, and

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3. It is a more a extensive proliferation and for delayed disintegration of the urethral plate completely partitioning the glans into 2 halves.

Failure of fusion of paired genital tubercle primeridia results in duplication. Our patient exhibits a single glans which is divided, suggesting a later developmental origin.

SUMMARY

A rare case of complete vertical cleft of glans penis and a brief discussion, of the embryology is presented.

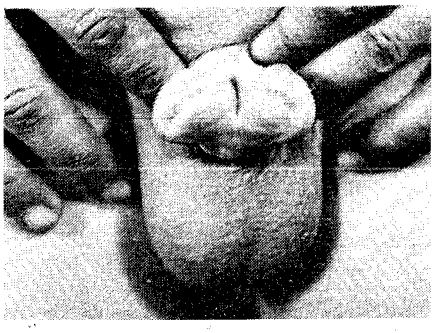

Fig. 1. Showing complete prepuce

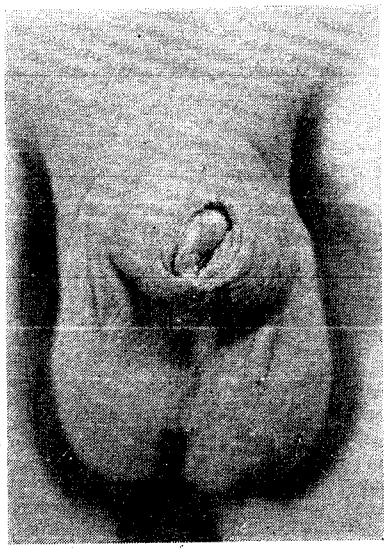

Fig. 2. Showing cleft of glans penis.

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