

CONGENITAL WEB FORMATION

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On the small island of Rodriguez, measuring about six miles by four miles and lying 300 miles east of Mauritius, of which it is a dependency, there exists in three generations of one family the abnormal condition of webbing of the elbow. As will be seen from the family tree (Fig. 1) the head of the family, Eudoxe (Fig. 2), had the condition on one side only. As far as he was aware, none of his forebears had shown this congenital defect, which had also spared his siblings. Of his twelve children, two sons and two daughters inherited the condition, the involvement being in every instance bilateral. The sons, Wilford (Fig. 3) and Lewis, were both seen but neither of the daughters would consent to examination. There seemed, however, from Eudoxe's firm assurance, little doubt that they suffered from the same deformity. Wilford was unmarried but Lewis was the father of seven children. His first born, a girl, was alleged to show the abnormality in one elbow in a very mild degree and his fifth child, Job, a young boy of ten, had the elbow on each side affected (Fig. 4). It was only when he was admitted to hospital for tonsillectomy that this familial congenital deformity was detected. Only one of the affected daughters of the first generation had married and her two children were normal.

One of the unaffected daughters had, however, transmitted the deformity to one of her children (a female). She could not be prevailed upon to come for examination but was believed to show webbing on one side only. The remaining members of this big family group were normal.

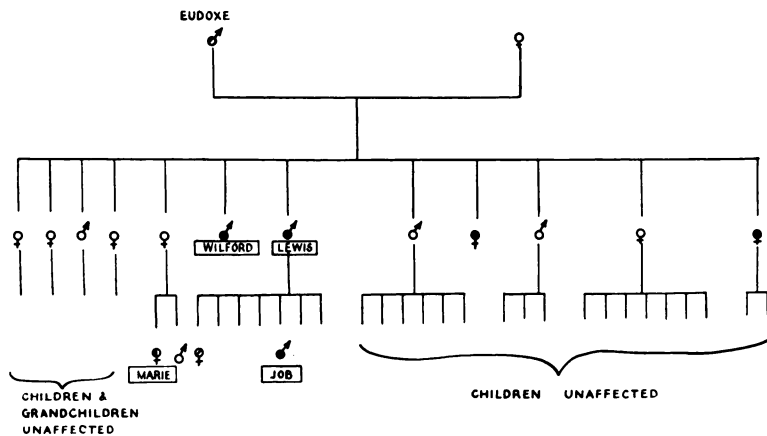


FIG. 1

Family tree to show the members of the family affected. ● = Both elbows affected. ● = one elbow affected. ○ = one elbow slightly affected.

In the patients examined the deformity in every instance was the same. On clinical examination, the most striking feature was the presence of a web of skin stretching across the cubital fossa from the distal third of the arm to the proximal third of the forearm. There was no interference with full flexion of the joint but extension was limited to only 90 degrees. Pronation and supination were also limited, the total range of rotation being no more than 90 degrees. When the elbow was flexed against resistance, the forearm being held in the semi-prone position, the web of skin was found to contain tensely contracted muscles of the flexor group. The power of this movement was not impaired. The triceps was well developed in its distal half but its proximal half felt like a fibrous cord and appeared to be imperfectly