Biometrika Trust

Note on Inheritance of Brachydactyly

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Source: *Biometrika*, Vol. 6, No. 2/3 (Sep., 1908), p. 327

Published by: [Biometrika Trust](#)

Stable URL: <http://www.jstor.org/stable/2331476>

Accessed: 22/06/2014 13:09

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MISCELLANEA.

I. Note on Inheritance of Brachydactyly.

In an addendum to a memoir on "Split Hand and Split Foot Deformities etc." published in *Biometrika*, Vol. VI, Pt. I, 1908, p. 117, the writer, referring to a statement by Punnett to the effect that no member of a brachydactylous family who is free from the defect can transmit it to his or her offspring, stated that this conclusion is disproved by the family recorded by Hasselwander (*Zeitschr. f. Morph. u. Anthrop.* Bd. 6, 1903, S. 510—526), in which such transmission actually occurred. A misprint in the original diagram of the family tree was at the time overlooked, and it appears from a personal communication which the writer has received from Dr Hasselwander, that transmission of the nature stated did not occur.

The remaining two families bearing on the matter under consideration, and quoted in a footnote to the original addendum, may be given in fuller detail. Ammon writes in *Die angeb. chir. Krankh. d. Mensch. u.s.w.* Berlin, 1842, S. 96, as follows:—"Merkwürdig ist in dieser Hinsicht ein von Keltie beobachteter Fall, wo bei den Gliedern einer Familie schon seit zehn Generationen nur der Daumen vollständig gebildet gewesen war, während an den übrigen Fingern entweder beide Gelenke, oder wenigstens das Nagelglied fehlte. Eigenthümlich war dabei, dass sich diese Missbildung nur in den weiblichen Gliedern der Familie fortpflanzte."*

Joachimsthal in *Virchow's Archiv*, Bd. 151, 1898, Folge xv. Bd. 1, S. 430, writes:—"Die 27-jährige, bis auf die zu schildernden Anomalien an beiden Händen normale, 160 cm grosse Patientin weiss über Verbildungen in der Ascendenz nichts zu berichten. Ein 29- und eine 22-jährige Schwester haben, wie sie selbst—wenn auch weniger ausgesprochen—verkürzte Zeige- und Mittelfinger. Der einzige Bruder ist selbst normal gestaltet, besitzt jedoch eine 1-jährige Tochter mit den gleichen Fingerverbildungen, ebenso wie dies bei einem frühzeitig verstorbenen Knaben der älteren Schwester der Fall war. Unsere Patientin selbst ist Mutter eines jetzt 4-jährigen, normalen Knaben. Von den verbildeten Familienmitgliedern habe ich nur die 22-jährige Schwester zu untersuchen vermocht, u.s.w."

In the original addendum the Hasselwander family constituted the most conclusive evidence for the transmission of brachydactylia through a normal individual, and this portion of the evidence must be withdrawn without qualification.

In conclusion, gratitude must be expressed to Mr Punnett for his courtesy in allowing the writer the opportunity of personally correcting the error which has occurred.

July 2, 1908.

THOMAS LEWIS.

II. Note on Inheritance in Man.

The importance of certain considerations being borne in mind with regard to pedigree work is well illustrated by Dr Lewis' note. On looking at Hasselwander's pedigree I personally should consider Dr Lewis' statement correct, not because of the misprint which might attribute some of the children of Fanny to Victoria, a normal individual (for the numbering of the offspring shows that there was a misprint of some sort), but because the writer states directly that the deformed Joseph K. was the child of normal parents.

* The original report of the Keltie family has since been found (*Edin. Med. and Surg. Journ.* 1808, Vol. IV, p. 252). The condition was in all probability the same as that in the Farabee family. The women who transmitted the defect were apparently also malformed, though from the text it is somewhat uncertain.