

ANONYCHIA AS A RECESSIVE AUTOSOMAL TRAIT IN MAN*

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Anonychia is a rare congenital anomaly. In some reported cases other defects have been associated, and in some there has been a dominant or uncertain mode of inheritance. Recent reviewers have referred to congenital anonychia without other defects as a dominant trait. Cockayne (1) assembled the observations on three small reported kindreds (2, 3, 4) that suggested simple recessive inheritance. There was a total of 5 affected and 13 unaffected siblings, a ratio of 1:2.6. Only the report of Heidingsfeld mentioned consanguinity; in his case the parents were first cousins.

We have observed a patient with congenital absence of seven fingernails without evidence of other anomalies. Occurrence of a similar pattern in a brother and the absence of any known anomalies in the 19 other members of the kindred is the basis for this report.

CASE REPORT

The patient was a 66 year old white woman admitted to the Cook County Hospital on September 27, 1961. The complaints and findings were typical of congestive failure owing to rheumatic heart disease with severe mitral and aortic stenosis with tricuspid insufficiency. Following a brief period of improvement her condition worsened and she died six weeks after the first admission. Autopsy examination confirmed the cardiac diagnoses. The only additional noteworthy finding was the presence of a few small renal cysts thought to be of congenital origin.

The nails were normal in both thumbs and the left little finger, and absent in the other fingers (Figs. 1, 2). There were rudimentary matrices but nothing resembling nails had ever been present according to the patient. The phalanges and patellae were normal on palpation but no roentgenograms were taken. Bony structure of the thorax, spine and pelvis was normal on radiographic examination. The right little toe had been surgically removed in childhood "after injury from a shoe" but the other toes appeared normal.

Information on the kindred (Fig. 3) was obtained from the patient and separately from her daughters, and were in full agreement. All other survivors were in East Germany except for two grandchildren. Consanguinity of the patient's parents was denied. The affected brother was said

to lack all fingernails, with nail beds resembling those of the proband, and to have normal thumb and toe nails. He was in good health at the age of 60, based on recent correspondence, and was known to have no other anatomic peculiarities. The family knew many remote relatives, but none were known to have nail defects.

Blood grouping tests were performed by Dr. Tibor Greenwalt of the Milwaukee Blood Center on specimens from the patient, her two daughters and two uninvolved siblings. There were no suggestive associations.

SUMMARY

A patient is described with congenital absence of seven fingernails and no other significant con-

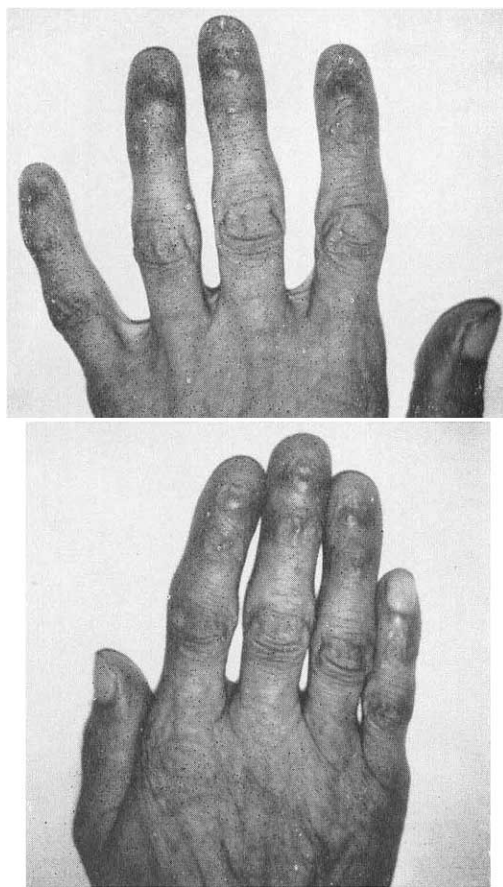


FIG. 1. (top) Left hand
FIG. 2. (bottom) Right hand

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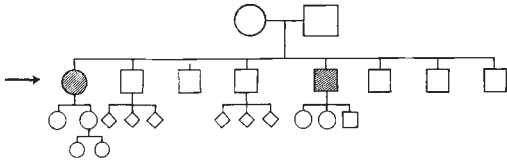


FIG. 3. Pedigree

genital abnormalities. The pedigree suggests inheritance as a recessive autosomal trait.

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