

## **EXTREMELY RARE LONGITUDINAL DIRECTION OF ALL MAIN LINES ON THE HUMAN PALM**

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### **Abstract**

In the paper is described the extremely rare course of all main lines on the human palm. The lines, without any exception, lead in the longitudinal direction. This course was described in dermatoglyphic literature both in normal population and in some diseases only very exceptionally. It was found in a long – term dermatological survey of Czech and Polish populations, a joint project of the anthropological departments of the Faculty of Science of Palacký University in Olomouc and the Philosophical Faculty of Marie Curie – Skłodowska University of Lublin.

### **Introduction**

In the paper is described the extremely rare cours of all main lines on the left palm of a girl. It was found in a long – term cooperation between the anthropologists of the Department of Zoology and Anthropology of the Faculty of Natural Science, Palacký University in Olomouc (Czech Republic) and the Department of Archaeology of the Philosophical Faculty, Marie Curie-Skłodowska University in Lublin (Poland). The cooperation is devoted to the research on the frequency of dermatoglyphic patterns on hands of the Czech and Polish population.

## **Material and method**

The prints were obtained with the usual technique and evaluated by the method devised by Cummins et Midlo 1943. It was an anonymous dermatoglyphic survey of normal Polish population, which was made several years ago in Lublin.

## **Results and discussion**

The present palm print was found in a long-term dermatoglyphic survey of Czech and Polish populations in the material deposited in the anthropological section of the Department of Archaeology of the Philosophical Faculty of Marie Curie-Skłodowska University in Lublin.

In figures 1–3 is shown the course of the main lines on the proband's left hand both in the original and in the diagram. It is a very exceptional course of all main lines in the longitudinal direction. The course of the lines was evidently influenced by an extraordinary large carpal loop on the hypothenar, which is extremely shifted in the distal direction. On the other hand of the proband, the course of the main lines was within normal variability. The same can be said about the course of the main lines on the palms of both of her parents.

Even though the print quality is not first-rate, the course of the lines is clearly visible. Unfortunately, at present a print of the palm in a better quality could no longer be obtained because of the proband's anonymity and a certain time lapse since the survey.

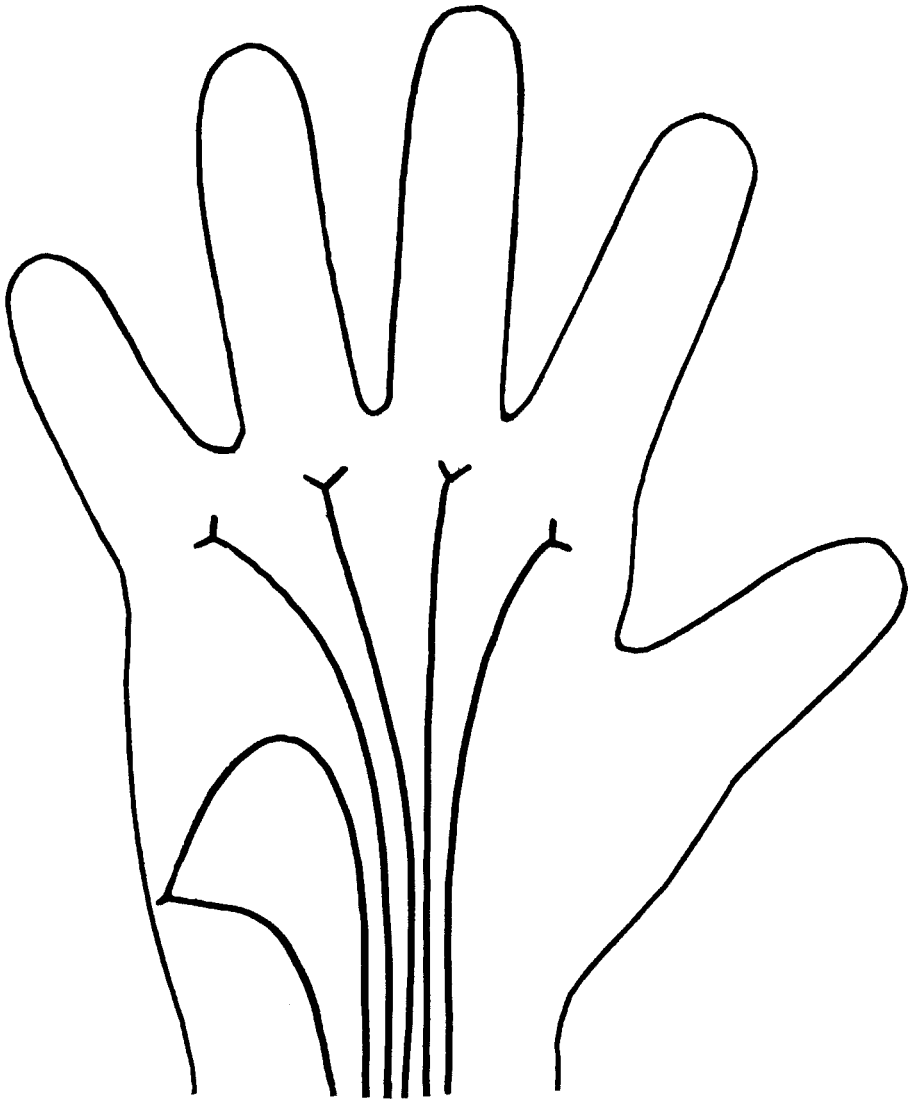
As regards earlier finds, it can be said that even in world anthropological literature similar cases are very rare. The longitudinal course of all main lines was for the first time reported by Kanaseki, Miyaneke and Wada 1939. In 1943 another find was published by Cummins and Midlo, who examined the material collected by Wilder. In neither case anything is known about the proband's health condition. Also Alsop, Dwyer and Cooke 1964 found in a healthy man the longitudinal course of the main lines. More finds, however, were registered in diseased persons. So e.g. Degenhardt and Geipel 1952 found this course of the main lines on the palm of patients with Phocomelia, Holt and Lindsten 1964 in patients with Turner's syndrome, Pfeiffer and Schulte zu Berge 1964 in thaladomidous children, and Wolf, Brehme and Reinwein 1964 in patients affected by Goldenhare's syndrome and the disease Arthrogryposis multiplex congenita. In the latter disease, this course of the main lines was found by Brehme and Baitsch 1966, too.

## **Summary**

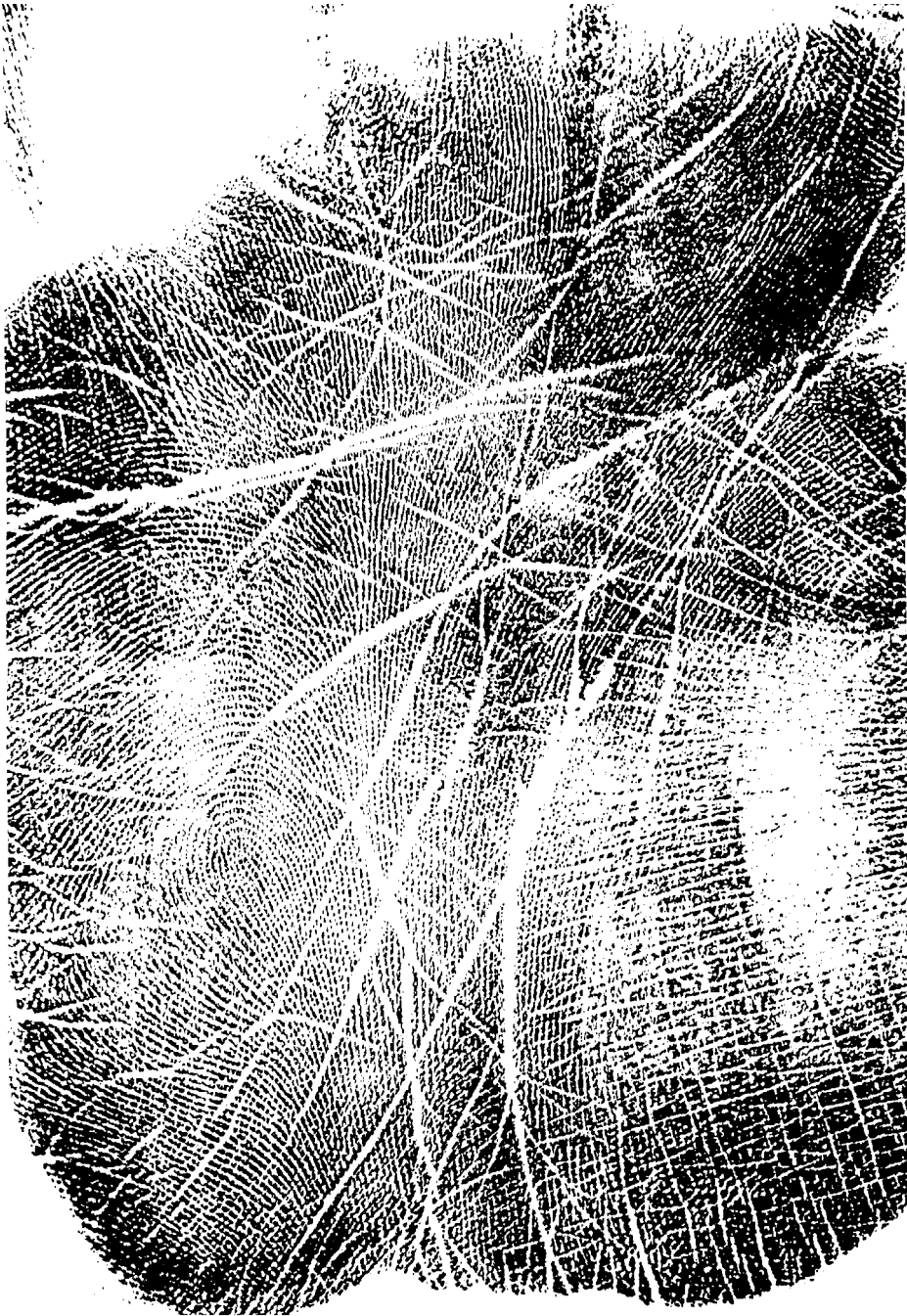
In the paper is presented the find of a very rare longitudinal course of the main lines on the human palm. This course of the main lines is quite exceptional in normal, healthy population. It is somewhat more frequent, but still very rare, in people afflicted by a disease.



**Fig. 1** Longitudinal course of the main lines on the proband's palm



**Fig. 2** Diagram of the course of the main lines on the proband's palm



**Fig. 3** Enlarged detail of the course of the main lines in the subdigital region

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