

Poland's anomaly

Poland's anomaly (Poland's syndrome) is a congenital defect named after the British anatomist Sir Alfred Poland, who first described it. A typical sign is unilaterally underdeveloped or partially developed *musculus pectoralis major* usually associated with cutaneous syndactyly of the fingers of the ipsilateral hand.

Incidence

Due to the variable phenotypic manifestation, a significant number of cases may go unreported. Currently, the numbers vary from one case per 10 000 births to one case per 100 000 births^[1]. For unknown reasons, it occurs three times more often in boys than in girls and twice as often on the right side as on the left.

Etiology

The cause of Poland's anomaly is unknown. There are two hypotheses, neither of which has yet been confirmed. The first claims that Poland's anomaly is caused by an overgrowth of ribs on one side of the body. This causes reduced blood supply to the overlying pectoral muscle and arm of the affected side. The second presents the possibility of a malformation of the embryonic artery carrying blood to the muscle and arm.

Clinical picture

The clinical picture of Poland's anomaly is given by the aplasia of some chest muscles - especially *musculus pectoralis major*. Other changes include rib and nipple abnormalities on the affected side, finger abnormalities (syndactyly, brachydactyly); skin disorders (hypoplasia). In rare cases, the syndrome is associated with damage to the spine or kidneys.



A man with Poland's anomaly. The left pectoralis major muscle is absent or greatly reduced.

Therapy

The therapy consists in the surgical correction of abnormalities, i.e. in the correction of the chest defect and in women in plastic surgery of the affected breast.

Links

Literature

- SADLER, Tomas W. *Langman's medical embryology*. 10. edition. Philadelphia : Lippincott Williams & Wilkins, 2006. 371 pp. ISBN 0-7817-9485-4.

References

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