

TRANSIENT LYMPHEDEMA DUE TO INTENSE PHYSICAL ACTIVITY

Key words Lymphedema, physical activity.

Case report. A 25-year-old girl presented a swelling of the right arm. She enrolled to a gym six days before and carried out in the two following days intense physical activity with the upper limbs. The day after her upper limbs were painful and the next day, when the pain started to decrease, she noticed a heavy right arm with difficulty to lift it. Physical examination showed obvious edema of the right arm. An ultrasound showed the absence of muscle and tendon lesions but suprafascial and to a lesser extent subfascial edema. Meanwhile, the next day the swelling affected also the right forearm (Fig. 1, see the marks of the bracelet) and the left arm. Laboratory tests, in particular clotting tests and d-dimers, were within normal limits; a Doppler ultrasound of the upper limbs till to the subclavian vessels excluded arterial and venous problems. In the following days edema disappeared completely. The final diagnosis was transient **lymphedema due to intense physical activity**.

In literature there are not cases similar to the current one while there are reports on **lymphedema** of the upper limbs due to surgery or radiation therapy for breast cancer (BC). There are guidelines advising women operated for BC against intense activity of the upper limb to avoid the risk of lymphedema (3), though it is known that muscle activity helps the lymph progression in the lymphatic system (1). McNeely et Al. (2) studied the problem in women survived BC who practiced rowing, comparing after strenuous exercise the circumference of the arm ipsilateral to BC with that of the contralateral healthy arm. The exercise caused obvious edema of the limb ipsilateral to the CM, but also of the contralateral one, remaining unchanged the difference between the circumferences of the two limbs. The actual report supports the transient **edema activity of physical stress**.



Fig. 1

References

- 1) Loscalzo J., Creager M.A., Dzau V.J. - Vascular medicine. Little Brown, Boston 1992, pp. 1099-104.
- 2) McNeely M.L., Campbell K.L., Coumeya K.S., Mackey J.R. - Effect of acute exercise on upper limb volume in breast cancer survivors: a pilot study. *Physiother. Can.* 61, 244-251, 2009.
- 3) NLN Medical Advisory Committee. Position statement of the National Lymphedema Network: exercise [Internet]. Oakland, CA: TheNetwork; 2008 [cited 2008 Oct 1]. Available from: www.lymphnet.org/pdfDocs/nlnexercise.pdf