

A short postgraduate anatomy course may improve the junior surgical residents' anatomy knowledge for the nerves of the inguinal region

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Abstract

Background and Aim: Inguinal hernia repair is one of the most common operations in a junior surgical resident's postgraduate training. Short recall courses can improve junior residents' anatomy knowledge and results in better surgical outcomes. We aimed to investigate the effect of a short course on anatomical competency during inguinal hernia repairs.

Methods: During the first 25 inguinal hernia repairs, two junior residents were asked to identify iliohypogastric, ilioinguinal, and genital branch of genitofemoral nerves. Then, the residents were given a short recall course by anatomists. Afterwards, the participants were taken into an in-vivo anatomy test again. The same parameters were recorded in another 25 inguinal hernia repairs. In addition to the nerve identification records, case characteristics [body mass index (BMI ≤ 25 vs. >25), hernia type (indirect vs. direct), and anesthesia used (general or regional vs. local)] were recorded.

Results: Anatomy education had a clear impact on the correct identification rates for the iliohypogastric and ilioinguinal nerves. The rates increased from 70% to 90% and above. Correct identification rate for the three nerves together significantly increased from 16 to 52% following anatomy education ($P = 0.006$). All three nerves were identified with significantly higher success rates after anatomy education. The increase in the success rate for identification of the genital branch of genitofemoral nerve was 4-fold.

Conclusions: Short anatomy courses in specific subjects for junior surgical residents given by formal anatomists may be effective during postgraduate education. The benefit obtained in the present study for the inguinal region nerves may be expanded to more important anatomical structures, such as the recurrent laryngeal nerve in a thyroidectomy, or more complex subjects.

Key words: Inguinal hernia, ilioinguinal nerve, iliohypogastric nerve, genitofemoral, gross anatomy, dissection, surgical anatomy, postgraduate education, surgery resident education

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