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Regional Anestheisa in a Patient with Extreme Gigantism: A Case Report(*)

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ÖZET

Aşırı Uzun Gigantism Olgusu ve Rejyonel Anestezi Uygulaması

Akromegali, yetişkinlik döneminde pitüiter bezde aşırı büyüme hormonu üretimine bağlı olarak gelişir. Ciddi morbidite ve mortaliteye sahiptir. Bu olgulara anestezi uygulanması sırasında ortaya çıkan primer problem üst hava yolunda oluşan değişiklere bağlı gözlenir. Olgumuz 28 yaşında erkek hasta diz ve ayaklarındaki ağrıları nedeniyle başvurmuştu. Hastanın 2,45 cm boy, 120 kg ağırlığında olduğu saptandı. Öyküsünde akromegali hikayesi olan hastaya genu varum operasyonu için rejyonel anestezi uygulandı, postoperatif herhangi bir komplikasyon ile karşılaşılmadı. Guiness Rekorlar Kitabına giremese de, olgumuz şu an dünyada yaşayan en uzun insandır. Yapılan literatür çalışmasında benzer bir gigantik olguda rejyonel anestezi ile ilgili herhangı bir literatüre rastlanmamıştır.

SUMMARY

Acromegaly and Regional Anestesia

Acromegaly is an uncommon hormonal disorder that develops pituitary gland procedures too much growth hormone during adulthood. It has serious mortality and morbidity. A primary problem on anesthetic management is from changes in the upper airway. A 28-yr-old male, 245 cm height, 120 kg weight was admitted to the hospital with history of leg and knee pain. He has acromegaly in his history. Our anesthesia was planned a regional anesthesia for genu varum surgery. There is no complication in postoperative time. He is tallest man in the world. But he can't accept Guiness record book. It represents the first case in the anesthesiology literature.

INTRODUCTION

Acromegaly is a condition of dysregulated growth hormone (GH) secretion characterized by excess GH consantrations and associated with considerable morbidity and mortality (1). In %98 of patients with acromegaly, the excess production of GH results from a benign pituitary adenoma (2,3). In this situation the patients bones increase in size, especialy in hands, feet and face. In children who are still growing, too much growth hormone can cause a condition called gigantism. These children have exaggerated bone growth and an abnormal increase in height (4).

Patients with acromegaly have increased morbidity and mortality due to diabetes, cardiac hypertrophy, hypertension, coronary disease, congestive heart flaiure, colon cancer and stroke. Enlarged lung volumes may lead to ventilation perfusion mismatch and increased dead space (5). The primary problem on anesthetic management is from changes in the upper airway. Mask use and ventilation may be difficult. Skeletal changes will cause neck mobility (6).

CASE REPORT

A 28-yr-old male, 245 cm height, 120 kg weight was admitted to the hospital with a history of right leg and knee pain for four weeks. The physical examination revealed and acromegalic appearing subject with no neurological abnormalities. He has a story: when he was 18 yr old, he has hypophyso macroadenoma. He was surgery therapy for macro adenoma. A transsphenoidal approach was used. He has glucocorticoide medicine theraphy for

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a month. He has not any other organ disfunction problem.

He was scheduled for genu varum surgery. He had undergone recent internal medicine and endocrinologist , than he was currently medicated with corticosteroide for 120-1. His past history was unremarkable and laboratory tests were all within normal limits. Perioperative monitoring included a three lead electrocardiogram, pulseoximetry (SpO2), non-invasive blood pressure (BP). Our anesthesia was planned a regional anesthesia. Patient did not recieve any pre-operative sedative drugs and were fasting for at least eight hours. Intravenous fluid was performed with Ringer Lactate 10 ml kg-1. Fifteen minutes before surgery, 15 mg of intrathecal heavy bupivacaine and 1.2 mg of intrathecal morfine were administered accordind to local anesthesia. Intraoperative sedation was performed IV 8 mg midazolam. No intraoperative complication occured. Postoperative analgesia was performed with tramadol patient controlled analgesia. There was no postoperative complicatiions in first 24 hours and than.

DISCUSSION AND CONCLUSION

However, he was not accepted from Guiness record book. Our patient is the tallest man in the world. In acromegalic and gigantic cases, mask use and ventilation is the most problems because of the face deformities and changes in the upper airway. The tongue and epiglottis have inreased sizes, so they make difficult viewpoint of the vocal cords and intubation (6). Skeletal changes will cause neck mobility. So, limitations in head and neck mobility may contribute in addition to the acromegalic manifestations of difficult intubation performance in these patients(6).

However, there are only few data avaliable regarding the incidence of difficult intubation in acromegalic patients. Two published retrospective series documented an incidence of 12 and 30 per 100 patients, respectively (7,8).

In our literature search, we can not find any literature for regional anesthesia in extreme gigantism. In these patients we can see large intervertebral distance and scoliosis due to gigantism. But in the procedure we have not see a problem for regional procedure. It represents the first case in the anesthesiology literature in which the regional anesthesia and its treatment rewieved.

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