CR19 Functioning pituitary gonadotroph microadenoma responding to GnRH antagonist therapy: a case report

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KEYWORDS: degarelix; Pituitary Adenoma; Trisomy 22

INTRODUCTION/OBJECTIVES: Functioning pituitary gonadotropinomas are rarely described and comprise only a small portion of pituitary adenomas. Most of them are macroadenomas and cause endocrine dysfunctions usually presenting as either ovarian hyperstimulation, testicular enlargement or precocious puberty. Transsphenoidal resection is currently regarded as the treatment of choice, while other treatment options are considered ineffective and are rarely used.
CASE PRESENTATION: A 20-year old male patient with partial chromosome 22 trisomy was referred to the department of endocrinology for endocrine workup. Laboratory tests done revealed elevated serum levels of testosterone (34,6 nmol/L), LH (28,4 IU/L) and FSH (106,0 IU/L). Following these results, the patient underwent a pituitary MRI which showed a pituitary microadenoma measuring 3-4mm in diameter. Since the patient was suffering from multiple comorbidities due to partial trisomy of chromosome 22, adenomectomy was not an option due to increased perioperative risks. The patient was treated with degarelix (a GnRH antagonist) subcutaneously (80 mg sc. every 3 months). Consecutively, a significant decrease in serum testosterone levels (0,8 nmol/L), as well as in levels of LH (0,9 IU/L) and FSH (2,3 IU/L) was noticed. Repeated MRI scan showed no sign of the previously described microadenoma after one year of therapy.
CONCLUSION: Degarelix showed its effectiveness in reducing the size of the adenoma and subsequently lowering hormone levels, thus making GnRH antagonists a possible treatment option in similar cases.

CR20 Intermittent claudications of the hand after supracondylar humeral fracture in a 2-year old boy

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KEYWORDS: brachial artery; children; neurovascular injuries; supracondylar humeral fracture

INTRODUCTION/OBJECTIVES: Supracondylar humeral fractures (SHF) are the most common fractures associated with concomitant neurovascular injuries in children. Pink pulseless hand (PPH) labels SHF presenting without a pulse in a well-perfused hand. Management of PPH after successful SHF reduction remains controversial. Some advocate „watchful waiting", whereas others favor early exploration. We present a case of a 2-year-old boy with PPH and intermittent claudications 6 weeks after successful SHF reduction.
CASE PRESENTATION: A boy sustained a completely dislocated SHF after a fall. Examination revealed partial loss of median nerve innervation and PPH, which persisted after closed reduction and percutaneous pinning. Postoperative radial artery Doppler showed biphasic arterial waveform and lower flow velocities. Six weeks after the injury, the hand was cold and pale during minimal straining, and the patient avoided using his hand. CT angiography showed a thrombosed segment of the brachial artery in the cubital fossa. Surgical exploration revealed thrombosis of the brachial artery and the median entrapped in the fracture. The thrombosed segment was resected, and the defect was reconstructed with a reversed cephalic vein graft. The nerve was freed, and the partial defect was reconstructed with direct sutures. The postoperative course was uneventful, with full recovery of hand function, elbow movement, innervation, and palpable radial pulses six months following the injury.
CONCLUSION: Although children with PPH after SHF do not require immediate brachial artery exploration, the absence of radial artery pulse several weeks after SHF requires careful follow-up and re-evaluation to avoid complications and ensure aproprate growth and function of the affected extremity.