

Pituitary Tumors and Hypopituitarism in Intractable Pain Patients

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Purpose

Pituitary-adrenal hormone abnormalities have long been known to occur with severe chronic pain.¹⁻³ Reported here is anatomic evidence of pituitary tumors as well as pituitary hormonal insufficiencies in severe intractable pain patients.

Method

Four (4) adult patients (3 females, 1 male) with severe intractable pain for 8 to 18 years presented for pain treatment with hypopituitarism in all 4 and 3 with proven pituitary adenomas diagnosed by magnetic resonance imaging (MRI). All patients gave a history that their pain had been constant, severe, and undertreated, and that they had spent most years since their pain began being bed or house bound and unable to carry on normal social, marital, or vocational activities. Initiating causes were head and neck trauma with cervical spine degeneration in 3 patients and rheumatoid arthritis and fibromyalgia in the 4th. At the time of referral their opioid dosage was less than 80mg of morphine equivalence a day. Replacement hormones consisted of 3 or more of the following: estrogen, cortisone, testosterone, thyroid, growth hormone, and progesterone. Patients were treated with a regimen of long and short acting opioids, stretching exercises, various electromagnetic measures and high protein diet. Doses of opioids were titrated upward over time until the patient was able to eliminate a bed-house-bound state and resume normal activities of daily living.

Results

With adequate pain control there has been no further MRI evidence of pituitary tumor growth and some hormone replacements have been stopped or dosages lowered.

Conclusions

These cases indicate that the pituitary may attempt to respond to severe pain by accelerating hormonal production to the point that hyperplastic tumor growth may result. If the stress of severe intractable pain continues unabated, hypopituitarism with adrenal and gonadal hyposecretion appears to occur. Pain practitioners need to be aware that these serious complications may occur in undertreated, severe, intractable pain patients.