Defining postoperative values for successful resection of prolactinomas

Clinical pearl

William T. Couldwell, M.D., Ph.D., and Martin H. Weiss, M.D.

Departments of Surgery and Neuroscience, University of North Dakota, Minot, North Dakota; and Department of Neurosurgery, University of Southern California, Los Angeles, California

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We, as other authors, have noted that late relapse of hyperprolactinemia following apparent successful adenomectomy in women harboring microprolactinomas is not rare.[1-3]

On retrospective review of a series of tumors treated at the University of Southern California teaching hospitals, we have found that the immediate postoperative prolactin level may be predictive of late recurrence of hyperprolactinemia.[4] It is our routine to ascertain prolactin levels at 3 days and 6 weeks postoperatively. Of 133 patients undergoing microadenomectomy who had 3-day postoperative prolactin levels of less than 10 µg/L (the vast majority of these were less than 3 µg/L), 132 or 99% had prolactin levels of less than 20 µg/L at their 6-week follow-up examination. At 5 years postoperatively, 130 (98%) of the original 133 patients still had normal prolactin levels. However, of 43 patients who had 3-day postoperative prolactin levels in the range of 10 to 20 µg/L, only 32 (74%) had prolactin levels in the normal range at 6 weeks postoperatively, and only five (16%) of this group of 32 patients had normal prolactin levels at 5-year follow-up review. Therefore, although 18% of patients who have a normal postoperative prolactin level at 6 weeks will develop recurrent hyperprolactinemia when followed for 5 years, only three (7%) of 41 represent patients with immediate prolactin levels of less than 10 µg/L, whereas the remainder were in the group with immediate postoperative prolactin levels in the 10 to 20 µg/L range.

These data indicate that the traditional criteria used to determine successful microadenoma resection in the immediate postoperative period (prolactin level of less than 20 µg/L) may be too liberal; in our series the patient with an immediate postoperative prolactin of less than 10 µg/L had an approximately 98% chance of long-term chemical cure, and we have yet to see a recurrence of hyperprolactinemia in a patient whose immediate postoperative prolactin level was less than 3 µg/L.

References


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Address reprint requests to: William T. Couldwell, M.D., Ph.D., Trinity Medical Center, One Burdick Expressway West, Minot, North Dakota 58701.