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Correspondence

Metastatic bilateral malignant ovarian tumors associated with pregnancy

To the Editor,

I read with interest the article by the authors, Singhal et al [1]. I am surprised to learn that there have been only three cases of Krukenberg tumors reported during pregnancy in the summary and the introduction sections.

There were at least four case reports in a PubMed search of bilateral Krukenberg tumors in pregnancy. The first was a 22-year-old female at the 28th week of gestation with rapid onset of hirsutism and acne since the 20th week of gestation, in Ankara, Turkey (Ozdegirmenci O, Kayikcioglu F, Haberal A, Ozfuttu A. Krukenberg tumor mimicking pregnancy luteoma. Gynecol Endocrinol 2007;24:1–4). The second was a 38-year-old pregnant woman with abdominal pain, cesarean delivery at the 25th gestational week in Serbia and Montenegro. Two weeks later, the mother died because of pulmonary failure (Glisić A, Atanacković J. Krukenberg tumor in pregnancy. The lethal outcome. Pathol Oncol Res 2006;12:108–10). Another report was bilateral Krukenberg ovarian tumors complicated by pregnancy in an Antiguan woman of African ethnicity (Raghunandan G, Martin TC. West Indian Med J. 2005;54:348–9). And then, a 35-year-old woman underwent an elective cesarean section at Week 35; the patient died of disease 5 months after diagnosis in Lausanme, Switzerland (Sandmeier D, Lobrinus JA, Vial Y, Delaloye JF, Genton CY. Bilateral Krukenberg tumor of the ovary during pregnancy. Eur J Gynaecol Oncol 2000;21: 58–60). In an analysis of 120 Krukenberg tumors at James Homer Wright Pathology Laboratories of the Massachusetts General Hospital, Boston, USA, stromal luteinization was present in the tumors of the eight pregnant patients [2].

A PubMed search of Krukenberg tumors during pregnancy found 44 articles. I will only site few more cases in the years after 2000. The latest patient was a 34-year-old woman who was diagnosed by ultrasonography at 15 1/2 weeks of pregnancy with a left ovarian Krukenberg tumor in New Mexico, USA. She was treated with surgical removal and irinotecan use during pregnancy. The neonate was born finally without complications (Taylor J, Amanze A, Di Federico E, Verschraegen C Irinotecan use during pregnancy. Obstet Gynecol 2009;114:451–2). This case was published in August 2009 after report by Singhal et al [1]. In May, 2009, Testa et al reported Color Doppler sonographic features of a Krukenberg tumor in pregnancy in Rome, Italy (J Ultrasound Med 2009;28:695–8) and Reichelt et al reported Initial diagnosis of Krukenberg tumor in pregnancy (in German) (Rofo 2009;181:483–5). In New Delhi, India, Agarwal et al found one patient with Krukenberg tumor in 14 cases of persistent adnexal masses identified among 2,000 deliveries. (Arch Gynecol Obstet 2003;267:148–52). Okutomi et al reported Intrathecal fentanyl/meperidine combined with low-dose epidural bupivacaine for Cesarean section in a 41-year-old primiparous patient with advanced Krukenberg tumors in Kanagawa, Japan (Acta Anaesthesiol Scand 2002;46:1272–5). Cosme et al reported Krukenberg tumor secondary to gastric carcinoma in a woman in her eighth month of pregnancy (in Spanish). The 43-year-old female patient died 12 months after diagnosis (Gastroenterol Hepatol 2001;24:63–5).

In a review of Krukenberg tumors (an 11-year experience), in the Montefiore Medical Center, Bronx, New York, USA, seven patients with Krukenberg tumors was found and two were postpartum [3]. In an analysis of 112 cases of Krukenberg tumors of the ovary, 3 cases of Krukenberg tumors were associated with a recent pregnancy in Kurume University Hospital, Japan [4]. In a clinicopathologic analysis of 27 cases of Krukenberg tumors of the ovary, Holtz and Hart [5] commented that typically, the ovarian tumors were bilateral, asymmetrically large, and solid in 1982. The earliest article sited by PubMed is by Parry-Jones E (Krukenberg tumour complicating pregnancy in 1956. J Obstet Gynaecol Br Emp 1956;63:592–3). In conclusion, Krukenberg tumors during pregnancy are not extremely rare.

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References

[1] Singhal SR, Nanda S, Chaudhry P, Sen J, Singhal SK. Metastatic bilateral malignant ovarian tumors associated with pregnancy. Taiwan J Obstet Gynecol 2009;48:167−8.

[2] Kiyokawa T, Young RH, Scully RE. Krukenberg tumors of the ovary: a clinicopathologic analysis of 120 cases with emphasis on their variable pathologic manifestations. Am J Surg Pathol 2006;30:277−99.

[3] McGill FM, Ritter DB, Rickard CS, Kaleya RN, Wadler S, Greston WM, et al. Krukenberg tumors: can management be improved? Gynecol Obstet Invest 1999;48:61−5.

[4] Yakushiji M, Tazaki T, Nishimura H, Kato T. Krukenberg tumors of the ovary: a clinicopathologic analysis of 112 cases. Nippon Sanka Fujinka Gakkai Zasshi 1987;39:479−85.

[5] Holtz F, Hart WR. Krukenberg tumors of the ovary: a clinicopathologic analysis of 27 cases. Cancer 1982;50:2438−47.