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CORRESPONDENCE

Review of a high-risk obstetric anesthesia antepartum consult clinic

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To the Editor,

The co-management of high-risk pregnancies for women with significant medical comorbidities is becoming an increasingly prominent responsibility for anesthesiologists. The most recent report by the Centre for Maternal and Child Enquiries suggests that there is a lack of appropriate referral for high-risk patients and that many of the women who died from preexisting medical conditions did not receive pre-counselling or did not see the referred specialist in time.[1] Nonetheless, there is a paucity of literature on this subject, which is not surprising given the low incidence of high-risk antenatal anesthetic clinics. A survey of practice in the United Kingdom revealed that a dedicated clinic for pre-assessment of high-risk obstetric cases existed in only 30% of obstetric units.[2] Only one review detailing an obstetrical anesthesia assessment clinic has been published to date.[3] A voluntary high-risk obstetrical anesthesia patient registry exists in the United Kingdom with publications focused on subspecialty cases, but denominator data are unavailable to estimate incidences of various high-risk disorders.[4,5] Consequently, we undertook a retrospective chart review to determine the incidence of antepartum high-risk obstetrical anesthesia consultations at our institution and to describe the nature of the medical conditions most commonly referred to the clinic.

The study received hospital Research Ethics Board approval. All high-risk antenatal anesthesia consultations were identified during three representative years (2001, 2006, and 2011). Data collected included the primary indication for consultation, secondary diagnoses, maternal age, gestational age at clinic visit, and parity. The proportion of women with high-risk deliveries to receive an anesthesia antenatal consultation was estimated by examining the total number of high-risk deliveries in randomly selected months.

During the examined years, 1,357 women attended the high-risk obstetrical anesthesia clinic, representing 7.0% of overall deliveries (95% confidence interval [CI]: 6.6 to 7.3). Mean (SD) maternal age was 32.9 (5.1) yr. Fifty-two percent of the women were nulliparous and the average (SD) gestational age at time of consultation was 34.3 (3.3) weeks.

The three most common diagnoses for maternal referral across the three years were cardiac (19.7%; 95% CI: 17.6 to 21.9), musculoskeletal (15.5%; 95% CI: 13.6 to 17.5), and hematologic (13.5%; 95% CI: 11.6 to 15.3) (Table). Congenital cardiac disease (corrected or uncorrected cyanotic congenital heart disease, septal defects, coarctation of the aorta, other complex congenital cardiac disease with or without repair) represented 25-27% of cardiac patients and 5-7% of all consults seen at the clinic. Uncorrected scoliosis represented 47% of musculoskeletal patients seen in the clinic. Previous thromboembolic disease and/or known hypercoagulable state were the primary reasons (53%) in the hematological category, followed closely by thrombocytopenia (47%). Consultations due to obesity (body mass index $> 30\ \mathrm{kg \cdot m^{-2}}$) increased from 1% of all consults in 2001 to 12% in 2011 ($P < 0.001$). The proportion of women with more than one major medical disorder increased from 74 (18%) patients in 2001 to 173 (41%) patients in 2006 and 276 (53%) patients in 2011 ($P < 0.001$).

It was estimated that only 24.7% of eligible women for antepartum high-risk obstetrical anesthesia consultation

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Table Summary of consultations seen by primary indication

Primary Condition	2001 ($n = 419$)	2006 ($n = 428$)	2011 ($n = 522$)	Total ($n = 1,369$)
Cardiac	75	91	102	268
Musculoskeletal	80	52	78	210
Hematologic	58	56	69	183
Brain/Spinal Cord	37	40	49	126
Gastrointestinal	13	35	72	120
Autoimmune	19	26	31	76
Previous Anesthetic Problems	25	19	32	76
Endocrine	29	22	17	68
Obstetric	18	19	13	50
Cancer	8	15	9	32
Peripheral Nervous System	6	11	10	27
Renal	5	8	12	25
Genetic Syndromes	7	10	8	25
Respiratory	12	9	3	24
Infectious	10	5	4	19
Psychiatric	2	1	7	10
Patient Concerns	2	6	0	8
Allergic Reactions	4	1	1	6
Metabolic	1	1	2	4

were seen in the clinic during the three-year review. There may be multifactorial reasons for the limited number of consultations completed on eligible parturients, including a limited number of consultation appointment times available as well as the unpredictability of parturients closer to term.

We would like to conduct further research in our clinic to confirm the prospective high incidence of missed high-risk consultations, the reasons for missed consultations or non-referrals, and their impact on patient management. We would also like to conduct a prospective evaluation of the utility of the consults on patient satisfaction, clinical management, and outcome and the value of these clinics on resident and fellow education and resource utilization.

Conflicts of interest None declared.

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