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A Mydriasis Unnoticed Preoperatively

To the Editor:—A 23-yr-old man was referred in emergency to the hospital for multiple trauma management as a result of a motor vehicle accident. There had been no loss of consciousness. When he was admitted to the emergency care service, the patient was orientated. He had multiple lacerations on his scalp and lower extremities. However, except for abdominal tenderness, the remainder of his physical examination was unremarkable, and multiple radiographs revealed no abnormalities. The patient was pale, pulse was 130, arterial pressure was 100/70 mmHg, and respirations were 25 breath/min. Lung auscultation and heart sounds were normal. The urine was clear. Pulse oximetry was 99% while breathing 6 l/min additional oxygen via a face mask. The hematocrit was 40%. Other blood chemical and biologic values were normal. An ultrasonic examination of the abdomen showed a non-profuse intraperitoneal effusion.

While scalp, forehead, and lower limbs superficial wounds were sutured, the arterial pressure decreased to 70/45 mmHg. Volume expansion with colloids and erythrocyte transfusion were required. On physical examination, abdominal signs had worsened. The patient was taken to the operating room. General anesthesia was induced with intravenous etomidate (0.3 mg/kg) and fentanyl (5 µg/kg). Endotracheal intubation was facilitated by succinylcholine (1 mg/kg) and performed while cricoid pressure was applied. Thereafter, vecuronium (0.1 mg/kg) was administered, and anesthesia was maintained with a continuous intravenous infusion of 2 µg·kg⁻¹·h⁻¹ fentanyl and boluses of 1 mg vecuronium as required. A laparotomy was performed and revealed an hemoperitoneum related to a splenic injury, necessitating a splenectomy. After splenectomy, the hemodynamic status was restored easily.

During surgical wound closure, the anesthesiologist first noticed that pupils were not symmetrical. There was an opioid constricted pupil on the left eye, whereas there was an anisocoria on the right eye. No direct ocular or face injury was likely to explain this pupil's asymmetry. In this context of multiple trauma including a head

trauma, we decided not to risk missing a brain injury. A computed tomographic (CT) scan of the brain was performed while the patient was maintained under general anesthesia. No brain injury was seen on the CT scan. However, the CT scan revealed a prosthetic eye in the right orbital cavity.

The patient awakened normally after the CT scan, and confirmation of the prosthetic eye was obtained. Recovery was uneventful, and the patient was discharged from the postanesthesia care unit on the second postoperative day. A retrospective examination of preoperative skull radiographs confirmed that this prosthetic eye was not detectable on standard radiologic assessment.

Artificial eyes have been listed as one of the items in the differential diagnosis of anisocoria.¹ The failure to diagnose the presence of a prosthetic eye during the preoperative workup did not result in any harm to the patient. Nevertheless, it did result in a therapeutic misadventure.

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