Thrombosis of the internal jugular vein resulting from migration of a sharp esophageal foreign body

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ABSTRACT

Internal jugular vein (IJV) thrombosis is a rare, but potentially fatal condition. A 59-year-old female patient was referred to our hospital 3 weeks after ingesting a foreign body (FB). Twice endoscopic examinations at the referring hospital were negative. On arrival at our hospital, she was in pain, and the left side of her neck was swollen. A CT of the neck revealed the presence of a pointed radio-opaque FB in the left IJV together with a large thrombus containing a small abscess surrounding the intravascular part of the FB. The complete blood count (CBC), prothrombin time, activated partial thromboplastin time, and biochemical tests were all within normal ranges. She was started on antibiotics and analgesics. Through an incision along the anterior border of the left sternocleidomastoid muscle without proper diagnostic facilities should transfer such cases to better-equipped centers.

Case Report. A 59-year-old edentulous female ingested a FB body during a meal. Rigid esophagoscopy carried out at a local hospital resulted in negative findings. As her condition persisted for 3 more days, revision endoscopy was carried out with the same negative results. Two weeks later, she was referred to our hospital with dysphagia, pain, and swelling of the left side of the neck, which was tender along the anterior border of the left sternocleidomastoid muscle. She was febrile. T ere was only mild congestion of the arytenoids on flexible endoscopy. A CT demonstrated the presence of a pointed radio-opaque slender FB approximately 3 cm long (Figure 1). Contrast CT scan, and angiography were carried out, which showed the FB was already in the left IJV, with a large thrombus containing a small abscess surrounding the intravascular part of the FB (Figure 2). T e complete blood count (CBC), prothrombin time, activated partial thromboplastin time, and biochemical tests were all within normal ranges. She was started on antibiotics and analgesics. T rough an incision along the anterior border of the left sternocleidomastoid muscle without proper diagnostic facilities should transfer such cases to better-equipped centers.
In the reviewed literature, vascular catheter infections and catheter thrombosis are the 2 most common and serious complications, reported in 0-7.7 and 1.5-13%.

Thrombosis of the IJV is very rare as a complication of migrating esophageal FB. Plain x-ray may fail to locate the exact site. Diagnosis is usually confirmed with Doppler ultrasound or CT scans with intravenous contrast. Ultrasonographic findings include dilated and incompressible vein, intraluminal clot (a late finding), and lack of response to the Valsalva’s manoeuvre (expected change in intraluminal volume secondary to enhanced venous return). Ultrasonography is less accurate when the area under the mandible or clavicle is examined, and therefore CT with IV contrast is considered by many to be the study of choice for suspected IJV thrombosis. The CT scan findings include low-density intraluminal thrombus, a sharply defined bright vessel wall (contrast uptake by the vasa vasorum), soft tissue swelling surrounding the IJV, and a distention of the vein proximal to the thrombus. Possible complications are numerous and may include the formation of deep neck abscess, thyroiditis, or thyroid abscess, esophageo-vascular fistula or skin granuloma.
Management requires neck exploration, FB removal, and preventing the possible embolization from the thrombus. In infants and children, prompt treatment of a suspected esophageal FB is crucial because of the potential for severe complications. Radiographic evaluation of the esophageal FB is warranted in both symptomatic and asymptomatic patients. Ingestion of foreign materials that are witnessed are generally managed without problems. Conversely, diagnosis of nonwitnessed ingestions can often be difficult and delayed. Time delay in diagnosis can result in severe morbidity and mortality.9-11

In conclusion, the management of this rare presentation of ingested FBs becomes less daunting when approached systematically. A careful rigid esophagogastroduodenoscopic examination and one mm cut CT scan with and without oral contrast are the 2 important steps to a successful outcome. Systematic exploration of the neck via an external approach using the CT scan as a guide will decrease the chances of an unsuccessful exploration. Successful removal of the FB will prevent the occurrence of life threatening complications. Medical centers without proper diagnostic facilities should expedite transferring such cases to better equipped centers.

References


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