Accidental arterial chemoport catheter insertion

Implantable chemoports are being increasingly used in patients with cancer to facilitate long-term chemotherapy. The use of ultrasound to guide central venous access is one of the 11 recommended practices described by the Agency for Healthcare Research and Quality to improve the safety of procedures.[1] A 5-year-old child with primitive neuroendocrine tumor of thorax was planned for chemotherapy, so a chemoport was inserted below the right clavicle under general anesthesia. The catheter was guided into the right internal jugular vein (IJV) with the aid of ultrasound. After a week when the port was opened for chemotherapy, a gush of bright red blood, probably arterial, came out. A volume-rendered computed tomography angiography showed that the catheter tip was traveling from IJV to carotid artery, reaching up to the aortic root through brachiocephalic trunk [Figure 1]. Sternotomy was done and the catheter tip was pulled back to IJV followed by vascular repair. The perioperative period was uneventful. A parental consent had been taken for possible publication of the case.

The incidence of accidental arterial cannulation has fallen down considerably with the use of ultrasound.[2] In this case, the introducer needle placement in the IJV was confirmed with ultrasound. The possibility of guidewire puncturing the artery through IJV seems less likely due to its atraumatic J tip. The needle probably had punctured the carotid artery through IJV during the guidewire insertion, and subsequently, catheter was threaded over it. The aspiration of bright red colored blood during insertion was overlooked in our case due to high O₂ concentration delivered under anesthesia. Ultrasound visualization of the guidewire prior to dilation and insertion of the catheter may prevent carotid cannulation,[3] but in our case, the guidewire could not be tracked with ultrasound as the insertion point was just above the clavicle. The needle insertion point at the level of cricoid would have enabled the tracing of the guidewire with ultrasound.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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Undiagnosed hypothyroidism with delayed recovery: A case report

Sir,

We report a case of delayed recovery from general anesthesia, which was later on diagnosed as a case of hypothyroidism. A 60-year female patient was posted for elective open cholecystectomy with heart rate 47/min, blood pressure 140/80 mmHg, and normal electrocardiograph. Patient had no other comorbidities and was not on any drugs. Her echocardiography revealed stage I left ventricular diastolic dysfunction with normal systolic functions. Medicine referral was done for bradycardia. On operating table (OT) table, her heart rate (HR) increased to 58/min after injecting atropine 0.6 mg intravenously (IV). Anesthesia was induced with intravenous morphine, thiopentone, and vecuronium with endotracheal intubation and maintained with isoflurane, nitrous oxide, and oxygen uneventfully. At the end, patient recovered well with adequate spontaneous respiration and neuromuscular blockade was reversed with injection neostigmine and glycopyrrolate. However, following extubation, patient became drowsy and apneic. Trachea was reintubated and intermittent positive pressure ventilation was restarted. Fresh reports revealed normal electrolytes and blood gas analysis. Patient was re-evaluated clinically and was observed to have very thick and rough skin (probably missed in preanesthetic evaluation), low body temperature, and bradycardia without thyroid swelling.

Suspecting hypothyroidism, blood sample was sent for TSH estimation after 2.5 h of reintubation; and as injectable thyroxine was not available, two tablets of Thyroxin 100 µg each were given through Ryle's tube empirically on emergency basis. Patient recovered well after 4 h of elective postoperative ventilation. She became conscious with adequate spontaneous ventilation. Trachea was extubated. After surgery, corticosteroid replacement therapy was started as 100 mg three times a day and continued as oral therapy, since hypothyroidism is commonly associated with adrenal insufficiency.

Her diagnosis was later confirmed as hypothyroidism after receiving reports of TSH level (TSH: 111 µIU/L). She was put on tablet Eltroxin 100 µg daily thereafter.

Hypothyroidism may be present in subclinical form. The anesthetic requirement of hypothyroid patients has not been analyzed so far in any study; but clinically, they are found to be more sensitive to anesthetic drugs and sedatives affecting anesthetic management. [1,2] Clinical signs of hypothyroidism may range from cold intolerance to constipation, depression, lethargy, muscle weakness, slow movement, dry skin, slow gastric emptying, sleep apnea, depression of ventilatory response to hypoxia, and hypercarbia. [3]

The normal range of TSH is 0.3–4.5 mU/L. Primary hypothyroidism is diagnosed...