had history of dyspnea in lying down position. Local examination revealed extension of mass from hyoid bone to sternum in vertical dimension and beyond the sternocleidomastoid muscle in horizontal dimension (left > right). Pemberton sign was found positive (figure I). On palpation, there was single, soft to firm swelling with bosselated surface and which extended below and behind sternum and lower limit was not appreciated even with swallowing. Both vocal cords were mobile. No other notable finding was seen.

Thyroid stimulation test was found very low and propranolol was prescribed. Contrast enhanced computed tomography scan (CECT) of neck and thorax showed enhancing single mass lesion arising from cervical thyroid with extension into right parapharyngeal space and both side hyoid bone superiorly. Great vessels in neck were displaced posterolaterally with compression of trachea and obliteration of trachea esophageal groove and it was reaching upto prevertebral fascia posteriorly. Inferiorly it reached below the level of arch of aorta with significant anterior compression of thoracic trachea and most of the vessels in superior mediastinum (figure II, III). Fine needle aspiration cytology revealed features of Bethesda category I.

The mass was excised via transcervical approach using large collar incision without sternotomy. Mass was separated from surrounding structures and vascularity was controlled by ligation of...
No feeder was found in Retrosternal (mediastinal) part of the swelling. Bilateral recurrent laryngeal nerves and right parathyroid glands were identified and preserved. Retrosternal part was separated from surrounding structure by blunt dissection and mass was removed in Toto. Final histopathology examination revealed features suggestive of multinodular goiter.

Left vocal cord paresis was noticed on 4th postoperative day and it was recovered on first follow up visit. The patient is kept on thyroxine 100 microgram daily with regular monitoring of thyroid function test.

**DISCUSSION**

Grade 1 retrosternal goiters removal is possible by transcervical approach. Subsequent grades of retrosternal goiter require median sternotomy, posterolateral thoracotomy or a clam shell thoracotomy for complete exposure where as this case was managed by transcervical approach only. Transcervical excision without sternotomy is challenging as the retrosternal goitre can derive its blood supply from vessels in thorax and can be hypervascular leading to excessive bleeding. We control all possible feeder before handling of mass by careful evaluation and ligation of all feeder. Prolonged tracheal compression can induced tracheomalacia which was not found intraoperatively so that successful extubation was done. Literature review showed sternotomy is indicated for retrosternal goitre with vertical extension at or below aortic arch, revision surgery, presence of mediastinal nodes and recurrent and malignant tumours. The complications and morbidity associated with sternotomy approach is higher than the simple transcervical approach so decision should be made intraoperatively for higher grade secondary retro sternal goitres. Avoiding sternotomy also reduces the postoperative hospital stay and thus improves quality of life of patients as we saw in this case. Henceforth, this case highlights on the importance of attempting transcervical approach without sternotomy even in large retrosternal goiters extending below the aortic arch.

**CONCLUSION**

Grade 2 and 3 Secondary retrosternal goitre represents a great challenge for surgeons. Sternotomy is required for these masses. We here presented a grade 2 retrosternal goiter removed via transcervical approach which reduced morbidity associated with sternotomy as well as better quality of life and early recovery.
REFERENCES:


