



ANAESTHESIA IMPLICATIONS IN A CASE OF THYROIDECTOMY WITH DISSECTING AORTIC ANEURYSM.

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ABSTRACT

Introduction: Dissection in aortic aneurysm is considered as vascular emergency and needs immediate intervention as it can lead to life threatening bleeding due to rupture. Some patients have asymptomatic or incidental finding of dissecting aortic aneurysm posted for some other surgery. In that case it becomes a nightmare for the treating doctors and anaesthetist to what to do first. A intravascular aortic stenting as planned surgery. **Case:** Here we present 40-year-old female with hypothyroidism on treatment with huge thyroid compressing 60% of midtracheal lumen planned for thyroidectomy. CT scan found to have incidental dissecting thoracic and descending aortic aneurysm with dyspnoea on exertion grade 2. After multidisciplinary discussion she underwent total thyroidectomy followed by aortic intravascular stenting (TEVAR) both done under GA. **Conclusion:** After detailed discussion and multidisciplinary approach of this case, a thyroid surgery which was compressing airway was done first followed by TEVAR, both procedures went uneventful.

KEYWORDS :

INTRODUCTION:

Thyroidectomy is the commonest endocrine surgical procedure being carried out throughout the globe.

- Commonest implications during such procedure involve management of potential difficult airway and hemodynamic changes.
- Cardiovascular complications are equally challenging.
- Dissection in aortic aneurysm is considered as vascular emergency and needs immediate intervention as it can lead to life threatening bleeding due to rupture.
- Some patients are asymptomatic or incidental finding of dissecting aortic aneurysm posted for some other surgery.
- In that case it becomes a nightmare for the treating doctors and anaesthetist to what to do first.

Case:

42-year-old housewife, presented with complaints of swelling over front of neck more on right side since 2 years. Which was insidious in onset and gradually increased in size over last 6 months.

- A/w weight gain, fatigue and dyspnea on exertion since 1 month
- K/C/O hypothyroidism since 10 years, not on medication since 9 years, now on Tab thyronorm 50mcg OD since 1 month
- Posted for open total thyroidectomy

General Examination:

BMI- 28.5; Pulse-75/min regular; BP-110/76mmHg; RR-16bpm; SpO₂-98%

Airway Examination:

Mouth Opening- 3finger; MPC-2; Neck Movement- Adequate; Thyroid swelling+; TMD->6.5CM; SMD-14CM; Neck Circumference--32CM ; Mandible protrusion WNL , Teeth -Normal

Systemic Examination:

No significant abnormality detected

Local Examination:

Inspection-

A swelling of 8x5cm in front of neck more on right side with well defined margins, smooth surface, moves with deglutition and does not move with protrusion of tongue.

Palpation-A swelling of 10x6cm size is palpated more on right side of neck with well defined margins and nodular surface.

Extending over the right sternocleidomastoid just crossing the midline and below to right clavicle. It is possible to get under the swelling.

Percussion-

Resonant note over manubrium+

Auscultation-

No bruit heard over gland

Investigations:

- Blood investigations and TFT-WNL
- ECG- NSR
- Chest X-ray- PA view: s/o ?Goiter ?Aortic aneurysm
- X ray neck-AP/Lateral :midtracheal lumen compression +
- USG neck-s/o nodular goiter with colloid degeneration
- 2D ECHO -trivial TR, EF- 60%;no MS/MR/AR/AS
- CT thorax-Stanford, type b aortic dissection with intimal flap starting at junction of aortic arch and descending aorta extending down up to abdominal aorta. Lumen thrombosed and calcifications +
- Doppler-B/L femoral arterial doppler -normal
- IDL -B/L vocal cords mobile, chink adequate
- Cardiology opinion-maintain bp <130/80 and Hr <65/min, high risk of perioperative cves.

Our Management:

Explained about difficult airway, awake fib procedure and ventilatory support and, written informed high risk consent taken for GA

- **Pre-medication-** Inj glycopyrrolate IM 0.2mg, and tab thyronorm 50 mcg taken
- Difficult airway cart, All cardiac drugs and defibrillator checked and kept handy
- Pre-induction: supine position, standard ASA monitors attached. 2wide bore iv cannulated; right radial artery cannulated for IBP
- Induction: Inj fentanyl 2mcg /kg, Inj Loxicaid 2cc iv, Sevoflurane, graded propofol[transition of spontaneous respiration to assisted ventilation... Inj rocuronium 1mg/kg ...controlled ventilation.
- Intubation-by senior anaesthetists with 6.5mm cuffed flexometallic ETT by using C mac blade 3 and bougie. Maintained on O₂:N₂o 50%:50%+ sevoflurane, intermittent boluses of Inj Atracurium on VCV mode with MAC of 0.9 to 1; Ryles tube inserted.
- Intraoperative BP <120/70mmHg; HR-65/min; Surgeons checked for tracheomalacia. surgery time ; 1hr 20 min
- Post opt analgesia- Inj paracetamol AND Local infiltration

Prior to extubation check laryngoscopy –b/l vocal cords mobile and extubated.

- Pt was vitally stable through out the procedure ,post op arterial line removed and pt shifted to recovery with multipara monitor. Procedure was uneventful.

DISCUSSION:

- The anesthetic management of patients with aortic aneurysm who underwent surgical procedures other than correction of aneurysm with or without prior knowledge of the existence of the aneurysm.
- The risk of intraoperative rupture of aneurysm depends on its size, type, severity, and presentation of symptoms; stress and unstable hemodynamics .
- There are numerous other factors that affect the hemodynamic force during anesthesia and surgery, the increase of which would be very dangerous to the surgical patients with aortic aneurysm whether they receive anesthesia for a radical correction of the disease per se or for a surgical procedure unrelated to its correction.
- Therefore the anesthetic management of a patient with aortic aneurysm is a great challenge which the anesthesiologist must accept.

CONCLUSION-

After detailed discussion and multidisciplinary approach of this case, a thyroid surgery done first due to airway compromise and later on pt underwent TEVAR. Procedure went uneventful.

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