Recognising and Managing Haematoma Following Thyroid Surgery: Simulation Teaching is Effective

Authors : Emily Moore, Dora Amos, Tracy Ellimah, Natasha Parrott

Abstract : Postoperative haematoma is a well-recognised complication of thyroid surgery with an incidence of 1-5%. Haematoma formation causes progressive airway obstruction, necessitating emergency bedside haematoma evacuation in up to ¹/₄ of patients. ENT UK, BAETS and DAS have developed consensus guidelines to improve perioperative care, recommending that all healthcare staff interacting with patients undergoing thyroid surgery should be trained in managing post-thyroidectomy haematoma. The aim was to assess the effectiveness of a hybrid simulation model in improving clinician's confidence in dealing with this surgical emergency. A hybrid simulation was designed, consisting of a standardised patient wearing a part-task trainer to mimic a post-thyroidectomy haematoma in a real patient. The part-task trainer was an adapted C-spine collar with layers of silicone representing the skin and strap muscles and thickened jelly representing the haematoma. Both the skin and strap muscle layers had to be opened in order to evacuate the haematoma. Boxes have been implemented into the appropriate post operative areas (recovery and surgical wards), which contain a printed algorithm designed to assist in remembering a sequence of steps for haematoma evacuation using the 'SCOOP' method (skin exposure, cut sutures, open skin, open muscles, pack wound) along with all the necessary equipment to open the front of the neck. Small-group teaching sessions were delivered by ENT and anaesthetic trainees to members of the multidisciplinary team normally involved in perioperative patient care, which included ENT surgeons, anaesthetists, recovery nurses, HCAs and ODPs. The DESATS acronym of signs and symptoms to recognise (difficulty swallowing, EWS score, swelling, anxiety, tachycardia, stridor) was highlighted. Then participants took part in the hybrid simulation in order to practice this 'SCOOP' method of haematoma evacuation. Participants were surveyed using a Likert scale to assess their level of confidence pre- and post teaching session. 30 clinicians took part. Confidence (agreed/strongly agreed) in recognition of post thyroidectomy haematoma improved from 58.6% to 96.5%. Confidence in management improved from 27.5% to 89.7%. All participants successfully decompressed the haematoma. All participants agreed/strongly agreed, that the sessions were useful for their learning. Multidisciplinary team simulation teaching is effective at significantly improving confidence in both the recognition and management of postoperative haematoma. Hybrid simulation sessions are useful and should be incorporated into training for clinicians.

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