

Review of the Safety of Discharge on the First Postoperative Day Following Carotid Surgery: A Retrospective Analysis

Authors : John Yahng, Hansraj Riteesh Bookun

Abstract : Objective: This was a retrospective cross-sectional study evaluating the safety of discharge on the first postoperative day following carotid surgery - principally carotid endarterectomy. Methods: Between January 2010 to October 2017, 252 patients with mean age of 72 years, underwent carotid surgery by seven surgeons. Their medical records were consulted and their operative as well as complication timelines were databased. Descriptive statistics were used to analyse pooled responses and our indicator variables. The statistical package used was STATA 13. Results: There were 183 males (73%) and the comorbid burden was as follows: ischaemic heart disease (54%), diabetes (38%), hypertension (92%), stage 4 kidney impairment (5%) and current or ex-smoking (77%). The main indications were transient ischaemic attacks (42%), stroke (31%), asymptomatic carotid disease (16%) and amaurosis fugax (8%). 247 carotid endarterectomies (109 with patch arterioplasty, 88 with eversion and transection technique, 50 with endarterectomy only) were performed. 2 carotid bypasses, 1 embolectomy, 1 thrombectomy with patch arterioplasty and 1 excision of a carotid body tumour were also performed. 92% of the cases were performed under general anaesthesia. A shunt was used in 29% of cases. The mean length of stay was 5.1 ± 3.7 days with the range of 2 to 22 days. No patient was discharged on day 1. The mean time from admission to surgery was 1.4 ± 2.8 days, ranging from 0 to 19 days. The mean time from surgery to discharge was 2.7 ± 2.0 days with the of range 0 to 14 days. 36 complications were encountered over this period, with 12 failed repairs (5 major strokes, 2 minor strokes, 3 transient ischaemic attacks, 1 cerebral bleed, 1 occluded graft), 11 bleeding episodes requiring a return to the operating theatre, 5 adverse cardiac events, 3 cranial nerve injuries, 2 respiratory complications, 2 wound complications and 1 acute kidney injury. There were no deaths. 17 complications occurred on postoperative day 0, 11 on postoperative day 1, 6 on postoperative day 2 and 2 on postoperative day 3. 78% of all complications happened before the second postoperative day. Out of the complications which occurred on the second or third postoperative day, 4 (1.6%) were bleeding episodes, 1 (0.4%) failed repair, 1 respiratory complication (0.4%) and 1 wound complication (0.4%). Conclusion: Although it has been common practice to discharge patients on the second postoperative day following carotid endarterectomy, we find here that discharge on the first operative day is safe. The overall complication rate is low and most complications are captured before the second postoperative day. We suggest that patients having an uneventful first 24 hours post surgery be discharged on the first day. This should reduce hospital length of stay and the health economic burden.

Keywords : carotid, complication, discharge, surgery

Conference Title : ICAGPS 2017 : International Conference on Advancements in General and Pediatric Surgery

Conference Location : Tokyo, Japan

Conference Dates : November 13-14, 2017