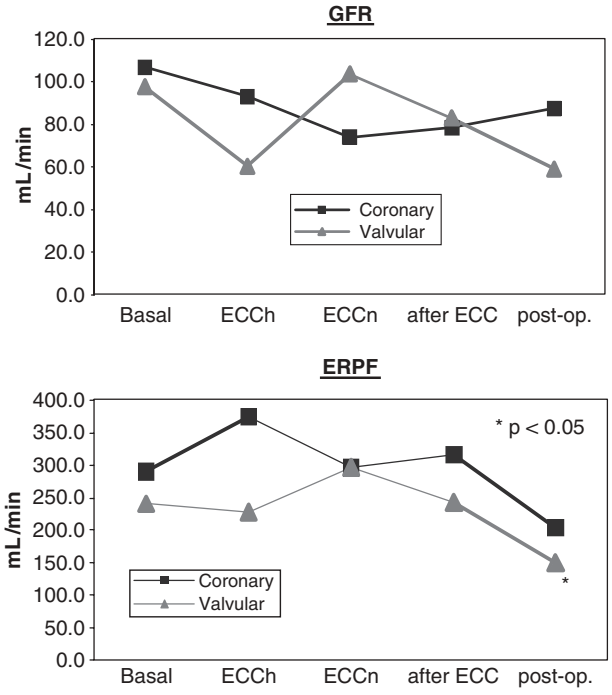

Figure 1.
Renal function during cardiopulmonary bypass. GFR: glomerular filtration rate; ERPF: effective renal plasma flow; ECC: extracorporeal circulation; h: hypothermia; n: normothermia; post-op: postoperative.

and aortic valve), the pattern of renal function during CPB, studied with inulin infusion for glomerular filtration rate (GFR) and I^{131} Hipuran for effective renal plasma flow (ERPF) is well preserved and no differences were found when compared with our own earlier studies in coronary patients [4,5] (Fig. 1). To our knowledge, that was the first such study in valvular surgery patients. GFR and ERPF were well preserved throughout, but ERPF was reduced before surgery. Similar results have been found in others types of surgery [7].

We agree with Landoni and colleagues that the risk for renal dysfunction and acute renal failure depends on many other factors: fasting, hypovolaemia, low cardiac output, emergencies, bleeding and preoperative renal dysfunction. Perioperative factors other than CPB should be considered the main reasons for acute renal failure in patients undergoing coronary and valvular surgery.

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Effect of dexmedetomidine on blood pressure and bleeding in maxillo-facial surgery

doi: 10.1017/S0265021507001081

EDITOR:
We read with great interest the study report by Durmus and colleagues [1] concerning the effect of dexmedetomidine on bleeding during tympanoplasty or septorhinoplasty. The authors showed that, compared to placebo, dexmedetomidine decreased intraoperative mean arterial pressure (MAP), heart rate (HR) and bleeding in the surgical field.

In a similar prospective study, we have assessed the efficacy of dexmedetomidine in achieving controlled hypotension during maxillofacial surgery [2]. Twenty consecutive ASA I patients undergoing

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Accepted for publication 25 May 2007 EJA 4592
First published online 1 August 2007

Table 1. Haemodynamic values during surgery.

Times	SAP	MAP	HR
Onset DXM	119 ± 16	88 ± 16	75 ± 11
Incision	85 ± 5	64 ± 6	67 ± 9
30 min	87 ± 7	64 ± 7	66 ± 9
60 min	86 ± 9	65 ± 9	65 ± 8
90 min	86 ± 8	64 ± 7	64 ± 8
120 min	83 ± 6	61 ± 6	63 ± 8
Offset DXM	81 ± 5	62 ± 5	63 ± 9

SAP: systolic arterial pressure; MAP: mean arterial pressure; HR: heart rate; DXM: dexmedetomidine.
Results are expressed as mean ± SD ($n = 20$).

maxillofacial surgery under general anaesthesia received a dexmedetomidine intravenous infusion of 0.1 $\mu g\,kg^{-1}\,min^{-1}$ for 10 min followed by 0.4–0.7 $\mu g\,kg^{-1}\,h^{-1}$, with the objective of maintaining systolic arterial pressure close to 80 mmHg. Dexmedetomidine infusion was stopped 20 min before the end of surgery. Systolic arterial pressure, MAP and HR were continuously monitored and recorded values were presented in Table 1. Systolic arterial pressure was maintained between 80 and 90 mmHg. Bleeding in the operative field was rated by the surgeons as minimal in 80% of patients and as moderate in 20% of patients. The time interval between end of surgery and tracheal extubation was 20 ± 11 min. Although there was not a control group in our study, our results regarding haemodynamic stability and decreased bleeding with dexmedetomidine in maxillofacial surgery were similar to the results reported by Durmus and colleagues in tympanoplasty and septorhinoplasty.

In summary, our study confirms the conclusion of Durmus and colleagues that dexmedetomidine is efficient in decreasing bleeding when a bloodless surgical field is required. Further controlled studies are needed to compare dexmedetomidine to other hypotensive agents in achieving controlled hypotension during surgery.

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https://doi.org/10.1017/S0265021507001081 Published online by Cambridge University Press