Awake sedation with propofol during carotid endarterectomy provides better stress relief compared to alprazolam premedication alone

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Objectives: Carotid endarterectomy (CEA) –
in regional anaesthesia
Increased stress – premedication or
premed+sedation?

Table 1. Patients' demographic and clinical characteristics

	TCI	BDZ	Σ
N	20	20	40
shunt	1	3	4
age	62.65±8.71	68.47±7.88	65.32±8.74
male	14	17	31
female	6	3	9
BMI	27.37±5.8	27.07±3.43	27.24±4.83
right sided operation	7	11	18
left sided operation	13	9	22
operated stenosis (%)	84.75±5.73	84.41±6.35	84.59±5.94
contralat. stenosis(%)	40.28±20.54	49±27.53	44.24±23.98
clamping time (min)	21.05±5.31	20.19±6.57	20.65±5.85

Methods:

1. premedication (0.25 mg alprazolam *per oral*) was used for all subjects
2. cervical plexus block
3. randomization:
 - intraop propofol sedation (TCI group) – Schnider-protocoll, $C_e=0.5-1 \text{ ug ml}^{-1}$, Target: Ramsay 2-3 level
 - control – only premed (BDZ group)

Laboratory measurements:

Cortisol: prior to surgery (T1), before (T2) and after release of carotid clamp (T3), at 2 (T4) and 24 post-operative hours (T5).

Alprazolam: before (T1) and after (T3) the surgery.

Results:

1. Plasma concentration of cortisol was significantly lower in the TCI group at T2 ($p=0.01$), T3 ($p=0.04$) and T4 ($p=0.006$) than in the BDZ group
2. Alprazolam plasma concentrations did not correlate with cortisol concentrations at any time point
3. Significant positive correlation was found between the clamp time and plasma cortisol concentration at T3 ($p=0.01$) and the degree of contralateral carotid stenosis and plasma cortisol concentration at T3 ($p=0.03$)

Conclusion: Intraoperative propofol sedation provides better stress relief compared to alprazolam premedication alone during awake CEA.

References:

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