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Introduction:

Awake videolaryngoscopic intubation (A-VDL) was introduced in our Department at Brescia's Spedali Civili University Hospital in 2019. The aim of this retrospective case series analysis was to further improve and standardize our protocol.

Methods:

We retrospectively evaluated 24 patients (from January 2019 to June 2021). The Indications for A-VDL were neck/facial anatomical abnormalities, super-obesity or El Ganzouri Risk Index > 6. We collected data about the timing of sedation, drugs used and dosage, level of sedation, procedure success/failure, complications, patient's explicit memory, and comfort.

Results:

A-VDL was successful in all the patients: 23 were allocated to A-VDL intubation and 1 to A-videobronchoschopic intubation due to an A-VDL Cormack-Lehane score of 4.

We identified 4 procedural Times (T0-T3). At T0, all patients received dexmedetomidine (see table 1) and local anesthesia (LA) followed by a deep pharynx exploration as "topicalization effectiveness test". At T1, 22 patients had fentanyl, and 14 a subanesthetic dose of ketamine; at T2 local anesthesia was also nebulized directly on the vocal cords/trachea in A-VDL in all patients. At T3, 9 patients had a subanesthetic dose of propofol (before tube passing). The median Ramsey and RASS score were 3 and -1 respectively. The mean time from T0 to intubation was 22 minutes.

When asked, 4 out of 13 patients recalled intubation and 1 out of 14 reported pain, while 3 out of 14 complained of mild discomfort. None required atropine. One patient had a transient oxygen desaturation after successful A-VDL. Patients receiving ketamine became less cooperative.

Conclusion:

In this case series, A-VDL was successful and well tolerated. Dexmedetomidine at a higher dosage than previously reported (mean 1.48 mcg/kg), together with a low dose of fentanyl, safely granted in this study the desired level of sedation while maintaining spontaneous breathing and cooperation.

Table:

1	EGRI (median/IQR)	5	3-6
2	ASA (median/IQR)	3	2-3
3	Lidocaine (mean/SD, mg)	245	111
4	Dexmedetomidine (mean/SD, mcg/kg)	1-3	0.5
5	RASS (median/IQR)	-1	(-1) - (-1)
6	Successful laryngoscopy	24	100%
7	Successful IOT	23	95.8%
8	Procedure duration (mean/SD, minutes)	31.9	21.5