TABLE 3. SUMMARY OF PROSPECTIVE STUDIES EVALUTING ORAL VERSUS INTRAVENOUS CORTICOSTEROIDS IN THYROID EYE DISEASE (TED)

Study (follow-up time)	*Treatment Arms*	*Outcome measure*	*Outcome results (n, %)*	*Comments*
Macchia et al. (12 mths) [73]	26 pts po steroid 25 pts iv steroid [a]	OI	po group: 24% iv group: 39.9%	The mean OI decreased from 2.65 to 2.00 in po group. The mean OI decreased from 4.43 to 2.67 in the iv group. The mean proptosis reduced from 23.7mmm to 21.07 mm in the po steroid group. The mean proptosis reduced from 22.46 mm to 21.56 mm in the iv group. iv group tolerated treatment better than po group.
Kauppinen-Makelin et al (12 mths) [74]	18 pts po steroid 18 pts iv steroid [b]	CAS Subjective change in double vision Change in proptosis Change in visual acuity Intraocular pressure	No statistical difference between the 2 groups in any of the outcome measures	CAS >3 for all patients CAS decreased in both groups from baseline to 12 months (3.1 to 1.6 in iv group and 3.4 to 1.4) 2/18 pts in iv group required ORT. 7/15 pts in po group required ORT. 0 pts in iv group required orbital decompression. 4 pts in po group required orbital decompression
Kahaly (6 mths) [75]	35 pts po steroid [c] 35 pts iv steroid	Composite improvement in proptosis, lid fissure width, diplopia in primary gaze, visual acuity, extraocular muscle thickness	po group:18/35 (51%) iv group: 27/35 (77%)	Moderately severe TED 4 pts in po group developed

		and quality of life		optic neuropathy (0 pts in iv group) 11 pts (32%) in po group required orbital decompression vs 5 pts (14%) in iv group 12 pts (35%) in po group required strabismus surgery vs 7 pts (20%) in iv group
Aktaran (3 mths)[76]	27 pts po steroid 25 pts iv steroid [d]	Changes in at least two major criteria (variations in proptosis and lid width of 2 mm or greater, appearance, disappearance, or change in the degree of diplopia, changes in the CAS 2 points or more, and changes on one tenth or more in visual acuity) and change in one minor criterion (soft tissue changes, self-assessment evaluation)	po group: 13 (49%) iv group: 18 (72%)	Moderately severe TED iv group had greater improvement in CAS, proptosis, lid width fissure, visual acuity and intraocular pressure. 5/6 pts with optic neuropathy improved in the iv group. 2/5 pts with optic neuropathy improved in the po group Quality of life improvement was noted to be statistically improved in the iv group vs po group ($p<0.0001$)

ABBREVIATIONS

TED: thyroid eye disease
ORT: orbital radiotherapy
CAS: clinical activity score
OI: Ophthalmology index
pts: patients
iv: intravenous
po: oral
mths: months

TREATMENT PROTOCOLS

[a] iv group: methylprednisolone 1000 mg for 2 consecutive days/week for 6 weeks
po group: prednisone 60-80 mg/day with gradual reduction and discontinuation over 4-6 months

[b]. iv group: methylprednisolone 500 mg/day for 2 days followed by po prednisone 40 mg/day 1 week, 30 mg/day 1 week, 20 mg/day for 1 week and 10 mg/day for 1 week. 500 mg methylprednisolone given twice followed by po prednisone 40 mg/day 1 week, 30 mg/day 1 week, 20 mg/day for 1 week, 10 mg/day for 4 weeks, 5 mg/day for 1 week and 5vmg/every other day for 1 week

po group: prednisone 60 mg/day for 2 weeks, 40 mg/day for 2 weeks, 30 mg/day for 4 weeks, 10 mg/day for 2 weeks, 5 mg/day for 1 week and 5 mg/every other day for 1 week.

[c] iv group: methylprednisolone 500 mg/week for 6 weeks followed by 250 mg/week for 6 weeks
po group: prednisone starting at 0.1 g/day for 12 weeks followed by a 0.01 g/week taper.

[d] iv group: methylprednisolone 500 mg/week for 6 weeks followed by 250 mg/ week for 6 weeks
po group: methylprednisolone 72 mg/day for 2 weeks, 64 mg/day for 2 weeks, 56 mg/day for 2 weeks followed by a taper of 8 mg/week for 6 weeks until discontinuation.