

Inverse Knapp procedure

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The article by Maurino, Kwan and Lee¹ in this issue retrospectively describes the authors' experiences with the relatively uncommon operation of infra-placement of the horizontal recti to the level of the inferior rectus muscle (inverse Knapp procedure). It represents the largest published case series to date and is a valuable addition to the small number of previously published retrospective and longitudinal case series.²⁻⁴

The inverse Knapp operation is the generally accepted primary procedure of choice for acquired isolated inferior rectus weakness of a marked to severe degree without mechanical restriction. The procedure reduces symptomatic primary position and downgaze vertical deviations, minimises lid malposition, improves compensatory head postures and functionally improves the field of binocular single vision. There is no evidence in the literature to suggest that this desirable effect deteriorates over time. Additional surgery may still be required to lessen residual symptomatic vertical diplopia, since the procedure cannot be expected to normalize downgaze versions in this patient subgroup.

The inverse Knapp procedure is also utilised for congenital absence or palsy of the inferior rectus with variable results.^{1,5} Maurino and colleagues describe another potential use, namely management of patients with symptomatic residual miscellaneous hypertropias and poor binocular functions.¹ These are a group of patients where the ipsilateral inferior rectus ductions may be normal/near normal and, as such, the inverse Knapp procedure becomes one of a number of surgical options that the ophthalmologist needs to consider.

Partial weakness of the inferior rectus muscle of a mild to modest amount may be best managed by non-transposition procedures using adjustable sutures where appropriate. The benefits of full or graded inverse Knapp procedures in this patient subgroup are less clear-cut, since the risk of symptomatic overcorrections may be increased, although various authors have reported encouraging results with transposition and non-transposition operations.^{1,6,7} For these patients the choice of operation should be individualised after careful evaluation of the extent and the sequelae of the inferior rectus dysfunction.

References

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