Objectives:
This is a retrospective analysis of 99 consecutive patients with trigeminal schwannoma surgically managed from January 1984 to June 30th 2017.

Methods:
While 51 tumours were located in a single compartment (Meckelâ€™s cave (MF) 30, posterior fossa (PF)21), 44 were dumbbell-shaped (PF-MF in 37, MF-extracranial 7). In one case, the tumour was totally extracranial and in three others it occupied all 3 compartments. All 8 patients managed until 1992 were operated on by conventional approaches. With the exception of the 21 patients with posterior fossa tumors and ten with dumbbell PF-MF tumors which were treated by the retromastoid route and three with MF tumor treated by the standard subtemporal approach, all other 57 cases managed since 1993 were operated on by the skull base approaches.

Results:
Tumour could be radically removed in 85 patients and decompressed in fourteen. The only operative mortality was in a patient with residual/recurrent tumour who developed meningitis. Seven patients were operated for symptomatic recurrences.

Conclusions:
Most multi-compartmental trigeminal schwannomas can be radically removed using a single-stage fronto-temporal interdural skull base approach.