Hypotony after 25-gauge vitrectomy using oblique versus direct cannula insertions in fluid-filled eyes.

Hsu J, Chen E, Gupta O, Fineman MS, Garg SJ, Regillo CD.

Abstract

PURPOSE: To compare intraocular pressure (IOP) and rates of postoperative hypotony with 25-gauge pars plana vitrectomy (PPV) without tamponade using oblique versus direct cannula insertions.

METHODS: A prospective consecutive series of eyes that underwent 25-gauge PPV without tamponade using an oblique cannula insertion technique was compared with a historical consecutive series of eyes that underwent 25-gauge PPV without tamponade using direct cannula insertions. IOP was recorded before surgery, on postoperative day 1, and on postoperative week 1.

RESULTS: Ninety-five eyes had 25-gauge PPV without tamponade, 55 with oblique cannula insertions and 40 with direct insertions. With oblique insertions, there was no statistically significant difference between mean IOPs measured before surgery, on postoperative day 1, and on postoperative week 1. Only 1 (1.8%) of the 55 eyes had hypotony (IOP, ≤5 mmHg) on postoperative day 1. With direct insertions, mean postoperative day 1 IOP was significantly lower than mean preoperative IOP (P = 0.009). Mean preoperative and postoperative week 1 IOPs were similar. Four (10%) of 40 eyes had hypotony on postoperative day 1.

CONCLUSIONS: Oblique cannula insertions may be superior to direct cannula insertions for lowering rates of absolute and relative postoperative day 1 hypotony in 25-gauge PPV without tamponade.

PMID: 18698294 [PubMed - indexed for MEDLINE]