| **Results of the Endophthalmitis Vitrectomy Study** | Arch Ophthalmol 1995;113:1479-1496 |
|---|---|

EVS

**Introduction:** The EVS is a randomized controlled clinical trial sponsored by the NEI to determine the role of immediate pars plana vitrectomy and systemic treatment in the managemnet of postoperative endophthalmitis.

**Eligibility:**

- ☞Clinical signs & symptoms of endophthalmitis with in 6 weeks
- ☞VA 20/50 to LP
- ☞Cornea and AC clear enough to see some part of iris
  - Cornea clear enough to do VIT
  - Vitreous clouding to obscure second order arterioles
  - No ocular disease to preclude VA 20/100

**Treatment**:

- ☞Treament groups:
  1. VIT + i.v. Ab's
  2. VIT + no i.v. Ab's
  3. TAP + i.v. Ab's
  4. TAP + no i.v. Ab's
- ☞All pts had 0.1ml AC TAP
- ☞VIT pts had vit biopsy/aspirate
- ☞TAP pts had 0.1 to 0.3 ml vit specimen either by needle or vitrectomy instrument
- ☞All patients received:
  1. Amikacin (0.4mg in 0.1 ml) intravitreal
  2. Vancomycin (1.0 mg in 0.1 ml) intravit
  3. Vancomycin (25mg in 0.5ml) & ceftazadine (100mg in 0.5ml) (amikacin 25mg in 0.5ml if allergic to pen) & dexamethasone (6mg in 0.25m) subconjunctival
  4. Topical vanco (50mg/ml) & amikacin (20mg/ml) q1hr if wound leak or infected wound otherwise q4hr
  5. Topical Atropine 1%
  6. Topical Pred Forte
  7. Prdenisone 30 mg BID for 5 to 10 days
- ☞I.v. Ab's patients received (for 5 to 10 days):
  1. Ceftazadime 2g q8hrs (cipro 750mg BID in allergic pts)
  2. Amikacin 7.5mg/kg load, 6mg/kg q12hrs

☞Culture:

AC: chocolate, thioglycolate, Sabouraud
AC/Vit: gram stain
Vit fluid through membrane: chocolate, thioglycolate or anaerobic media, Sabouraud

☞Reinjection & VIT for TAP group if:

1. VA <5/200
2. No RR
3. Growth on culture
4. Increase hypopion, corneal ring infiltrate, worse pain

**Outcome:**

Visual acuity @ 3, 9 & 12 months.
Media clarity grading system.

**Results:**

Stats:

| | |
|---|---|
| Mean age: | 75yrs |
| Sex: | 43% men |
| DM: | 14% |
| HTN: | 40% |
| Primary cat: | 95% (5% secondary) |
| Median time: | 6 days |
| Blurred VA: | >90% |
| Pain: | 75% |
| VA < 5/200: | 86% |
| VA=LP | 26% |
| RAPD | 12% |
| Ring infil: | 5% |
| No ret vessels: | 80% |
| Absent RR: | 67% |

Cultures:

| | |
|---|---|
| none: | 18% |
| equivocal: | 13% |
| GPCoagN: | 47% |
| Other GP: | 16% |
| GN: | 3% |
| >2 | 3% |

Additional VIT for TAP goup 7%

Media clarity: At 12 month visit no difference between groups.

VIT group cleared more quickly @ 3 month visit (86 vs 75%).

Visual Acuity: At 9-12 months: 53% 20/40 or better
74% 20/100 or better
15% worse then 5/200

Risk factors correlated with poor outcome: Absent RR
Poor initial VA
Rubeosis
Poorly dilating pupil

| If vision LP then: | | TAP | VIT |
|---|---|---|---|
| 20/24 or better | 11% | | 33% (3x) |
| 20/100 | 30% | | 56% (2x) |
| 5/200 | | 53% | 80% |
| <5/200 | 20% | | 47% (1/2 reduced SVL) |

No differnece between IV and NoIV

**<u>Conclusions</u>**:

1. VIT if initial VA is LP or worse.
2. If VA better then LP no advantage of doing VIT.
3. No role for systemic antibiotics.
4. Most important risk factor for poor visual outcome is LP.