Teaching At the Western Ophthalmic

Diabetic Papillopathy

- Uncommon condition
- Kanski;
  - "Transient, mild visual dysfunction associated with optic disc swelling... may be the result of small vessel disease"
- A 'diagnosis of exclusion'
- Controversy
  - Spectrum of AION Vs Capillary vasostasis

Diabetic Papillopathy

- 182 million people worldwide[X2 in 15yrs]
  - 1.8 million blind persons
- 2.9 million in UK
- Poor epidemiology; 121 case reports in literature; incidence ~0.5%

Diabetic Papillopathy

- Papilla [L.] a small nipple-shaped projection or elevation.
- Pathy [G] (pathos, “suffering”) morbid affection; disease.

Diagnostic criterion (Slagle 2012)

1. diagnosis of diabetes
2. Optic disc swelling (one eye or both)
3. Absence of substantial optic nerve dysfunction
4. Normal ICP
5. Lack of inflammation, infection or infiltration
Optic disc swelling

- Papilloedema
  - Bilateral; Normal optic nerve function; slow onset; AM headaches
- Pseudopapilloedema
  - Bilateral; Hypermetropia; Buried optic disc drusen
- Papillitis
  - ~30 yrs; reduced optic nerve function; pain on mvt; sudden onset; central scotoma
- Anterior ischaemic optic neuropathy (AION)
  - >55yrs; small disks; sudden loss of vision; altitudinal field defect
    - Non-Arteritic (arteriosclerosis)
    - Arteritic (GCA CRP>25 ESR>50 sensitivity 90%)
- Diabetic Papillopathy?
Blood Supply to Optic Papilla

Diabetic micro-angiopathy

• Hyper-glycaemia
  – Capillaropathy
    • Loss of pericytes
    • Basement membrane thickening
  – Haematological
    • Deformity of erythrocytes
    • Leukostasis
    • Platelet stickiness
    • Increased viscosity

Kiko: The Dog That Smelled Diabetes

Diabetic micro-angiopathy

– Early
  • Osmotic imbalance
  • ONH odeama

– Late
  • Capillary occlusion

ONH Perfusion

(2d) I) Inserted (3d) Inserted
Optic Nerve HF
HF (3d) Inserted
Optic Nerve (2d)

Perfusion Deficiency

Capillary Nonperfusion

(Diabetic Papillopathy)
Chip Edema

Compressive Effects

ONH Oedema
Spectrum of AION Vs Capillary vasostasis

<table>
<thead>
<tr>
<th>AION</th>
<th>Diabetic Papillopathy</th>
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<tbody>
<tr>
<td>Acute</td>
<td>Insidious</td>
</tr>
<tr>
<td>Age 55+</td>
<td>Age 20+</td>
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<tr>
<td>V/A &lt;6/12; Permanent</td>
<td>V/A &lt;6/12; Transient, 2-7 months</td>
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<tr>
<td>Marked RAPD</td>
<td>Mild RAPD</td>
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<td>Pallid or hyperaemic</td>
<td>Hyperaemic; telangiectatic</td>
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<tr>
<td>Attenuated</td>
<td>Venous engorgement</td>
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<tr>
<td>Field loss</td>
<td>Minimal field loss</td>
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<tr>
<td>FFA – HYPO</td>
<td>FFA – HYPER</td>
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Diabetic Papillopathy

Summary

- Uncommon condition ~ incidence 0.5%
- Mild visual loss
- Transient
- Spectrum of AION Or Capillary vasostasis
- Poor evidence in literature
- “diagnosis of exclusion”

Questions

Thank You