Foster Kennedy's Syndrome

Synonyms: Kennedy’s phenomenon; Gowers-Paton-Kennedy syndrome

Foster Kennedy's syndrome (FKS) is a rare neurological sign first described in 1911 by Robert Foster Kennedy. He was a British neurologist, who spent the majority of his working life in America (1884-1952). It consists of:

- Unilateral, ipsilateral optic atrophy, produced by direct pressure on the optic nerve.
- Contralateral papilloedema secondary to raised intracranial pressure (ICP).
- Central scotoma.
- Anosmia.

Pseudo-FKS has also been described, in which there is unilateral optic disc swelling with contralateral optic atrophy in the absence of an intracranial mass. This occurs typically due to bilateral sequential optic neuritis or ischaemic optic neuropathy. A case secondary to pachymeningitis (inflammation of the dura mater) has also been reported.

Pathogenesis

It is most commonly caused by a tumour on the inferior surface of the frontal lobe. This is usually an olfactory groove meningioma or a medial third sphenoidal wing meningioma.

It has also been reported as a consequence of:

- A metastatic cerebral tumour.
- Arteriovenous malformation, in which chronic venous hypertension was the likely aetiology.
- Juvenile nasopharyngeal angiofibroma (a rare benign tumour of the nasopharynx that occurs in adolescent boys with epistaxis and nasal obstruction).

A review of the 36 previously reported cases of FKS revealed that only eight (22%) of the cases satisfied Foster Kennedy’s original hypothesis for the pathogenesis of his syndrome. 12 cases (33%) were probably caused by bilateral optic nerve compression. The authors conclude that as more sophisticated imaging permits earlier and more precise diagnosis, future cases of FKS caused by a mass will probably be found to result from bilateral direct optic nerve compression.

Associated symptoms

These include:

- Nausea.
- Vomiting.
- Memory loss.
- Emotional lability, ie other frontal lobe signs.

Management and prognosis

Both depend on the underlying cause.

Further reading & references

- 1. Kennedy F; Retrobulbar neuritis as an exact diagnostic sign of certain tumors and abscesses in the frontal lobe. American Journal of the Medical Sciences, Thorofare, N.J., 1911, 142: 355-368

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