



Service Priorities and Programmes
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Audit Report on diagnostic yield of vitreal biopsy in eyes with suspected posterior segment inflammation or malignancy

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Introduction

It is often difficult to establish a diagnosis in eyes with posterior segment inflammation / malignancy because of overlapping clinical signs and symptoms. It has been reported in a large series of patients with chronic vitreous inflammation, no specific cause can be determined in upto 70% of the cases. When history, examination, and laboratory tests are insufficient, vitreal biopsy may be used to help determine the underlying cause.

Objectives

To audit the diagnostic yield of vitreal biopsy in eyes with suspected posterior segment inflammation or malignancy.

Methodology

Retrospective review of all patients with suspected posterior segment inflammation or malignancy who underwent vitreal biopsy at the ophthalmic unit of the Kowloon West Cluster.

Result

Nineteen patients (19 eyes) with a mean age of 56.7 ± 16.2 years (9 - 76 years) were included in the audit. Primary outcome: Of the 19 biopsies, 9 (47.3%) yielded a positive result. Amongst these 9 positive results, 8 (88.9%) were from PCR for CMV and VZV, and 1 (11.1%) from cytopathology for lymphoma. Secondary outcomes: The overall correlation between pre-biopsy clinical diagnosis and biopsy result was 42.1%, with eight patients had the pre-biopsy diagnosis being the same as the biopsy result. Correlation was highest in patients with the pre-biopsy diagnosis of VZV, with VZV detected by PCR in the biopsied specimens in all 4 patients with pre-biopsy diagnosis of VZV infection. Correlation was lowest among those with pre-biopsy diagnosis of HSV and TB, with no HSV and TB detected in any of the specimens. The mean decimal pre- and post-operative best-corrected visual acuity were 0.24 ± 0.24 and 0.30 ± 0.32 respectively. Number of eyes with improved, stabilised and worsened

visual acuity at the final visit were 7 (36.8%), 8 (42.1%) and 4 (21.1%) respectively.