

Clinicopathological correlates of ocular surface squamous neoplasia

Purpose: To examine the distribution of histopathological disease severity among a cohort of patients treated for clinically suspected ocular surface squamous neoplasia (OSSN), and to evaluate the relationship between various patient and clinical factors and severity of pathological grade.

Methods: A retrospective cohort study of demographic and clinicopathological factors of 150 patients clinically diagnosed with suspected OSSN who underwent excision of lesion with subsequent histopathological confirmation of diagnosis.

Results: A total of 124 patients were included in the study, mean age at diagnosis was 64 years, and 69% of patients were male. Seventy-four percent of cases were histopathologically confirmed to be OSSN. Pathological grading was as follows: CIN I (13/6%), CIN II (16.8%), CIN III (21.6%), CIS (21.6 %) and squamous cell carcinoma (2.4%). Lesion appearance was leukoplakic (18%), gelatinous (15%), dysplastic (11%), vascular (6%), papilliform (2%), nodular (2%). Lesion location was nasal (43%), temporal (42%), and superior or inferior (14%). Local spread was only documented in two cases (1.6%). Adjuvant mitomycin C was used in 35% of cases, interferon a2a in 4%, and interferon a2b in 9.6%. Recurrence occurred in seven cases (5.6%) with a mean time to recurrence of 825 days. No significant associations were found between clinical characteristics and pathological grade: sex ($p = 0.126$), eye ($p = 0.901$), quadrant location ($p = 0.402$).

Conclusions: OSSN is most commonly diagnosed in CIN III and CIS stages, and initial treatment outcomes are usually favourable, with very low rates of recurrence. This study provides an update of high-risk demographic and clinical features relating to the disease