

Other journals in brief

A selection of abstracts of clinically relevant papers from other journals.
The abstracts on this page have been chosen and edited by Paul Hellyer

Early cancer diagnosis reduces the cost of the disease

Bouaoud J, Bossi P, Elkabets M *et al.* Unmet needs and perspectives in oral cancer prevention. *Cancers (Basel)* 2022; **14**: 1815.

A network of research centres is needed to gather data.

Oral squamous cell carcinoma (OSCC) may be preceded by visible white (leukoplakia) or red (erythroplakia) lesions but many precancerous changes are not visible to the naked eye. If oral potentially malignant disorders (OPMD) can be identified, then earlier diagnosis and improved prognosis may be possible. While lesions may be associated with risk factors such as alcohol, smoking and betel nut chewing, many lesions occur in the absence of these. Visible OPMD can be monitored by biopsy (incision or excision) but there are challenges to define an OPMD classification system, to identify those OPMD at risk of malignant change and to develop prevention strategies which would manage both visible and invisible OPMD.

Histopathology is the gold standard for diagnosing and grading OPMD. However, dysplastic changes are sometimes very subtle and may be overlooked. Immunohistochemistry may be a useful adjunct but standardised criteria of histological appearances are needed to overcome observer variability and improve reliability of diagnosis.

Biomarkers have been proposed to identify OPMD at risk of OSCC development. Loss of heterozygosity at various chromosomal sites have been validated but longer term studies are needed to identify markers which may be useful in clinical practice. The accumulation of genetic changes is the driving force of carcinogenesis and therefore these chromosomal alterations may be the best predictors of malignant transformation.

A field of cancerisation is defined as 'a group of cells with tumour associated somatic genetic alterations' and can reach up to 10 cm in diameter. Microscopic dysplastic changes may be present or they may be visible macroscopically as red or white patches. They develop by a process of mutation relating to carcinogen exposure and may be stimulated by environmental cues.

Areas where research is developing include the role of the immune system – OPMD may resemble 'self' and not trigger an immune response or that malignancy develops in the presence of an immunosuppressive microenvironment – and the role of the oral microbiome.

The early detection of OPMD serves the purpose of secondary prevention of oral cancer. Visual examination and palpation are the conventional methods. Various optical and imaging techniques have been shown to improve identification of OPMD compared to clinical examination but suffer from low specificity. The lack of agreed histopathological standards makes the development of predictive algorithms very difficult.

Primary prevention of OPMD – elimination of risk factors such as smoking – remain the first line of management. Regular biopsy and possible surgical resection may be needed. There is no evidence of useful medical intervention which will prevent malignant transformation of OPMD.

<https://doi.org/10.1038/s41415-022-4458-5>

The role of religious beliefs in oral cancer diagnosis and treatment

Khokar M M, Gibso B, Winslow M, Owens J. 'Oral cancer is a punishment for my sins': oral histories of oral cancer, fatalism and Islamic religious beliefs in Pakistan. *J Relig Health* 2022; DOI: 10.1007/s10943-022-01585-7.

Doctors and spiritual healers working together could be of benefit.

There is little research concerning the experience of patients with oral cancer in low to middle income countries such as Pakistan. The social aspects of the disease – gender and socio-economic status – interplay with religious practices. Those with fewer resources, who also experience the highest rates of cancer, place a higher premium on religious beliefs and fatalism. Those with fatalistic beliefs believe that a divine being is in charge of the illness and this has been linked to non-participation in health promotion projects. Taking an oral history approach, this study carried out open ended interviews with a purposive sample of 15 female oral cancer patients with ages ranging from 29 to 80 years, from Rawalpindi/Islamabad.

The fatalism was common to all participants, and this led to the belief that Allah had both given them the disease but also that he had the ability to cure it. Even undergoing successful surgery did not weaken this belief. She chose not to complain because this might anger Allah. Another participant believed that because she had the disease, she was being punished for previous wrongdoings and frequently asked for forgiveness.

Some received comfort for their fears about the disease from their faith – 'when I am scared I tell myself that it is by God's will' but the contrasting advice from spiritual healers (piirs) and from the medical profession caused confusion.

For some, only after several unsuccessful visits to different piirs did they take the opportunity to seek medical advice. No conflict was felt about consulting both. The suggestion to visit the piir first was frequently a part of the support mechanisms from their social networks. The spiritual healing took the form of prayers being blown over the lesion. When both medical treatment and spiritual healing were combined, interviewees felt that both were equally responsible for successful treatment.

Women of comparatively higher social class or who were better educated believed in Allah 'that he is the one to give hardships and he is the one to cure' but dismissed the work of the piirs, having faith that Allah worked through the medical profession to heal them.

The responses to cancer from these women are complex. However, delays in seeking medical advice, due to consulting the healer first, may result in late diagnosis and poorer outcomes. The engagement of medical professionals with piirs to promote oral health may lead to the development of an improved referral pathway for oral cancer.

<https://doi.org/10.1038/s41415-022-4459-4>