

Emerging new clinical applications for palifermin: beyond its use in oral mucositis and graft versus host disease

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To the editor

I read with great interest the recent article by Barasch et al in a recent issue of your journal.¹ The article is highly thought-provoking. Interestingly, the past few years have seen the emergence of a number of novel clinical applications of palifermin, in addition to its use in oral mucositis and graft versus host disease.

For instance, palifermin gene therapy attenuates the symptoms and enzymatic changes seen in ulcerative colitis, resulting in decreased expression of tumor necrosis factor alpha and increased expression of Ki67 and keratinocyte growth factor receptor, thereby ameliorating the changes in the colon seen in ulcerative colitis.² Similarly, a single application of palifermin before radiation therapy significantly ameliorates radiotherapy-induced functional deterioration in bladder tissue.³ In fact, Czibere et al have recently reported successful management of severe hemorrhagic cystitis (that developed as a consequence of stem cell transplantation) with palifermin therapy.⁴

Further, palifermin reduces the duration of dysphagia, as well as the incidence of grade 2 dysphagia, in patients receiving concurrent chemotherapy and radiotherapy for thoracic malignancies, such as advanced lung carcinoma.⁵ Similarly, preadministration of palifermin markedly decreases diarrhea following administration of agents such as irinotecan.⁶

The above examples clearly illustrate the significant immunomodulatory potency of palifermin. Further large-scale studies are needed to elaborate further and investigate fully these potential uses of palifermin.

Disclosure

The author reports no conflicts of interest in this work.

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