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REVIEW

Palliative management of oesophageal cancer in South Africa

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Oesophageal cancer is common in South Africa (SA), and most patients are treated palliatively due to late presentation with advanced disease and poor performance status. Due to the unique challenges in SA, including resource constraints, palliative care may not be optimal. Most patients with oesophageal cancer in SA require individualised palliative care, ideally guided by a multidisciplinary team (MDT).

Dysphagia remains the most debilitating symptom, with self-expanding metal stents (SEMS) being the most effective and commonly used intervention. Other modalities include serial dilatation, endoluminal brachytherapy, external beam radiotherapy (EBRT), and endoscopic ablative techniques, though their availability is often limited. Systemic therapy may benefit selected patients with good performance status, while best supportive care (BSC) and psychosocial support are essential but inconsistently provided. Combined palliative modalities may improve outcomes, but further context-specific research is needed to guide optimal strategies in resource-limited settings.

Keywords: oesophageal cancer, palliative care

Introduction

Oesophageal cancer ranks as the 11th most common cancer in the world and the seventh leading cause of cancer-related deaths. The two main histological subtypes are squamous cell carcinoma and adenocarcinoma.[1] In South Africa (SA), oesophageal squamous cell carcinoma (OSCC) is the predominant subtype, and the majority of patients present with advanced-stage disease and/or poor performance status, precluding curative management.[2] Therefore, palliative management is the cornerstone of treatment, and clinicians' knowledge of palliative management strategies is essential. This review outlines current palliative management modalities for oesophageal cancer.

Overview of palliative care

The main aims of palliative care for patients with oesophageal cancer are symptom relief and improvement of quality of life (QOL). The symptoms that have the most significant impact on the QOL of patients with oesophageal cancer are dysphagia, pain, and those related to malnutrition.[3] The selection of patients for palliative care should ideally be made in a multidisciplinary team (MDT) setting, which, depending on available resources, may include gastroenterologists, surgeons, oncologists, radiologists, pathologists, nurses, dieticians, and palliative care specialists.[4]

All patients selected for palliative care should receive best supportive care (BSC) to relieve and prevent suffering and to provide them with the best QOL possible. Components of BSC include realistic discussions about prognosis and treatment options, evaluating and managing individual patient expectations, and psychosocial support.[5]

Palliation of dysphagia

The management of dysphagia, which is a cardinal symptom in advanced oesophageal cancer, depends on several factors. These include patient performance status, local expertise, and resource availability. Modalities include serial dilatation, stent placement, endoluminal brachytherapy, external beam radiotherapy (EBRT), and endoscopic ablative therapies.

Serial oesophageal dilatation

Serial dilatation is a widely used modality for the relief of malignant dysphagia in resource-constrained settings. It requires basic endoscopic equipment and is cost-effective when using reusable Savary–Gilliard or bougie dilators.[6] However, it requires repeated procedures and carries the risk of severe complications, like bleeding or perforation. For this reason, it is no longer recommended as sole therapy for malignant dysphagia. Nonetheless, it is still the only option available in some centres in SA.[7]

Stents

Self-expanding stent placement is the most common modality used to treat malignant dysphagia. Stent options include self-expanding plastic and metal stents. Self-expanding plastic stents have shown equal efficacy to their metal counterparts, albeit with a higher complication rate. Self-expanding metal stents (SEMS) are the most used and are highly effective. SEMS are made from nitinol, which can be stored in a contracted state and expand at body temperature, making them easy to deploy. They can be inserted quickly and safely without fluoroscopy.[8]

Uncovered metal stents have a higher rate of tumour ingrowth, while fully covered metal stents have a higher migration

rate. Partially covered metal stents have been designed to mitigate these complications. A recent meta-analysis showed no difference in efficacy, technical success, or stent migration between fully and partially covered metal stents.[9]

Endoluminal brachytherapy

Endoluminal brachytherapy delivers high-dose radiotherapy to the tumour bed with minimal exposure to surrounding organs. Treatment regimens range from a single 12 Gy application to 2–3 sessions of 6–8 Gy. There is strong evidence for its use, and comparative studies indicate that it provides better palliation in patients with a longer life expectancy than stenting. Contraindications to brachytherapy include cervical oesophageal cancer and the presence of a fistula. Side effects include chronic oesophagitis, ulceration, stricture, and fistula formation.[10,11] Overall, limited availability, complexity of administration, cost, and a lack of expertise have contributed to the underutilisation of brachytherapy in clinical practice.

Endoscopic ablative therapies

Laser therapy, photodynamic therapy, cryoablation, and argon plasma coagulation have all shown benefits in relieving malignant dysphagia. However, their use in clinical practice is hampered by high cost, lack of availability and expertise, need for repeated interventions, and lack of high-quality data supporting their use.[12]

External beam radiotherapy

EBRT provides effective dysphagia relief, especially for cervical oesophageal cancers where brachytherapy or stenting is challenging. Drawbacks include the delayed onset of symptom relief and the risk of initial worsening due to an inflammatory response. Standard regimens include 30 Gy in 10 fractions or 20 Gy in five fractions.[13]

Combined modalities

Because no single modality has shown clear superiority in the palliation of dysphagia in oesophageal cancer, combining different modalities appears more suitable. It seems reasonable, for example, to combine stent placement for rapid relief of dysphagia with EBRT or brachytherapy for more long-term relief. Studies on this approach have produced conflicting results, and insufficient evidence exists to justify its widespread implementation.[14]

Management of other symptoms

Optimal palliation for oesophageal cancer should include management of all symptoms that affect QOL. These include pain, loss of appetite, nausea, weight loss, reflux, and regurgitation. Pain should be managed according to the World Health Organization (WHO) pain stepladder. Since the pathophysiology of pain in OSCC is multifactorial, it is best managed with the assistance of a pain specialist or team.

Reflux symptoms should be managed with anti-reflux medication, while nausea and vomiting are best managed with 5-HT3 antagonists like ondansetron if treatment-related.[3] Mechanical causes, like oesophageal obstruction, are best treated with interventional procedures.[3]

Malnutrition significantly impacts QOL in oesophageal cancer patients. The problem is compounded when dysphagia cannot be addressed with stenting or radiotherapy, either due to tumour factors or a lack of resources. The insertion of enteral feeding tubes, especially percutaneous endoscopic gastrostomy, is sometimes the only option available to some centres. While this may address the issue of malnutrition, the impact on QOL is not well established. Survival may be prolonged, but if the oesophageal obstruction is not addressed, it will eventually progress to complete obstruction, rendering the patient unable to swallow their saliva. Guidelines on this issue are unclear, and more data from centres employing this modality are needed. The decision to place an enteral feeding tube should be individualised, made in a MDT setting, and only implemented after adequate counselling and fully informed patient consent.[15]

Providing psychosocial support cannot be overemphasised, yet it is often neglected. A collaborative approach is recommended, including input from patients and their family members, psychologists, social workers, and palliative care specialists.[3]

Systemic treatment in the palliation of oesophageal squamous cell carcinoma

Systemic chemotherapy may be considered in palliative care, especially for patients with adequate performance status. However, evidence supporting its use in OSCC is limited, and it is not recommended as a standalone therapy for dysphagia. Chemoradiotherapy may be considered for patients with locally advanced disease and good performance status, though its superiority over radiotherapy alone in the palliative setting remains unproven.[16]

Immune checkpoint inhibitors, which target anti-programmed cell death protein 1 (anti-PD-1) and anti-programmed cell death protein 1 ligand 1 (anti-PD-L1), have shown promising results in certain subsets of patients with oesophageal cancer. Pembrolizumab, a PD-1 inhibitor, combined with chemotherapy, showed a significant improvement in survival compared to chemotherapy alone in patients with a PD-L1 combined positivity score ≥ 10.[17] However, its use in SA is limited due to unavailability and cost.

Palliative surgery

Palliative surgery, including oesophageal resection and bypass, is mentioned for completeness, as it was commonly used before the introduction of more modern modalities, like stenting. It is an outdated palliative modality and not recommended due to the high mortality and complication rates.[18]

Conclusion

Most patients with oesophageal cancer in SA require palliative care. Clinicians should be familiar with available modalities and individualised management, ideally through MDT discussions.

SEMS provide rapid relief from dysphagia but may not be available in all centres. Combining different palliative modalities or adding systemic therapy may benefit patients with good performance status, but further contextualised research is required to define the optimal management strategy.

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References

1. Jiang W, Zhang B, Xu J, Xue L, Wang L. Current status and perspectives of esophageal cancer: a comprehensive review. Cancer Commun (Lond). 2025;(3):281-331. https://doi.org/10.1002/cac2.12645.
2. Ferndale L, Sartorius B, Aldous C, Thomson SR. Oesophageal cancer in Area 2 of KwaZulu-Natal: predictors of late presentation. S Afr J Surg. 2019;57(2):4-9. https://doi.org/10.17159/2078-5151/2019/v57n2a2948.
3. Guyer DL, Almhanna K, McKee KY. Palliative care for patients with esophageal cancer: a narrative review. Ann Transl Med. 2020;8(17):1103. https://doi.org/10.21037/atm-20-3676.
4. Vermeulen BD, Bruggeman L, Bac DJ, et al. Impact of multidisciplinary tumor board discussion on palliation of patients with esophageal or gastro-esophageal junction cancer: a population-based study. Acta Oncol. 2020;59(4):410-6. https://doi.org/10.1080/0284186X.2020.1725240.
5. Gaertner J, Weingärtner V, Wolf J, Voltz R. Early palliative care for patients with advanced cancer: how to make it work? Curr Opin Oncol. 2013;25(4):342-52. https://doi.org/10.1097/CCO.0b013e3283622c5e.
6. Heit HA, Johnson LF, Siegel SR, Boyce Jr HW. Palliative dilation for dysphagia in esophageal carcinoma. Ann Intern Med. 1978;89(5 Pt 1):629-31. https://doi.org/10.7326/0003-4819-89-5-629.
7. Nel D, Omar M, Chinnery G, Jonas E. Disparity in oesophageal cancer management in South Africa: a comparison between two tertiary centres with special focus on the palliation of dysphagia. S Afr J Surg. 2019;57(2):10-5. https://doi.org/10.17159/2078-5151/2019/v57n2a2842.
8. Kang Y. A review of self-expanding esophageal stents for the palliation therapy of inoperable esophageal malignancies. Biomed Res Int. 2019;2019:9265017. https://doi.org/10.1155/2019/9265017.
9. Wang C, Wei H, Li Y. Comparison of fully-covered vs partially covered self-expanding metallic stents for palliative treatment of inoperable esophageal malignancy: a systematic review and meta-analysis. BMC Cancer. 2020;20(73). https://doi.org/10.1186/s12885-020-6564-6.
10. Homs MYV, Steyerberg EW, Eijkenboom WMH, et al. Single-dose brachytherapy versus metal stent placement for the palliation of dysphagia from oesophageal cancer: multicentre randomised trial. Lancet. 2004;364(9444):1497-504. https://doi.org/10.1016/S0140-6736(04)17272-3.
11. Bergquist H, Wenger U, Johnsson E, et al. Stent insertion or endoluminal brachytherapy as palliation of patients with advanced cancer of the esophagus and gastroesophageal junction. Results of a randomized, controlled clinical trial. Dis Esophagus. 2005;18(3):131-9. https://doi.org/10.1111/j.1442-2050.2005.00467.x.
12. Dai Y, Li C, Xie Y, et al. Interventions for dysphagia in oesophageal cancer. Cochrane Database Syst Rev. 2014;2014(10):CD005048. https://doi.org/10.1002/14651858.CD005048.pub4.
13. Walterbos NR, Fiocco M, Neelis KJ, et al. Effectiveness of several external beam radiotherapy schedules for palliation of esophageal cancer. Clin Transl Radiat Oncol. 2019;17:24-31. https://doi.org/10.1016/j.ctro.2019.04.017.
14. Adamson D, Byrne A, Porter C, et al. Palliative radiotherapy after oesophageal cancer stenting (ROCS): a multicentre, open-label, phase 3 randomised controlled trial. Lancet Gastroenterol Hepatol. 2021;6(4):292-303. https://doi.org/10.1016/S2468-1253(21)00004-2.
15. Grilo A, Santos CA, Fonseca J. Percutaneous endoscopic gastrostomy for nutritional palliation of upper esophageal cancer unsuitable for esophageal stenting. Arq Gastroenterol. 2012;49(3):227-31. https://doi.org/10.1590/S0004-28032012000300012.
16. Mohapatra S, Santharaman A, Gomez K, Pannala R, Kachaamy T. Optimal management of dysphagia in patients with inoperable esophageal cancer: current perspectives. 2022;14:3281-91. https://doi.org/10.2147/CMAR.S362666.
17. Sun J-M, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. Lancet. 2021;398(10302):759-71. https://doi.org/10.1016/S0140-6736(21)01234-4.
18. Halpern AL, McCarter MD. Palliative management of gastric and esophageal cancer. Surg Clin North Am. 2019;99(3):555-69. https://doi.org/10.1016/j.suc.2019.02.007