

## To screen or not to screen: Reply to “Long-term results of an endoscopic screening program for superficial esophageal cancer in patients with head and neck squamous cell carcinoma”



Esophageal second primary tumors (ESPTs) frequently occur in patients with head and neck squamous cell carcinoma (HNSCC), with strongly varying incidences worldwide [1, 2]. Therefore, different screening strategies are used, from annual screening for every patient with HNSCC in some countries, including Brazil, to no standardized esophageal screening in Western countries. With great interest, we have read the article by Nobre Moura et al. [3] investigating endoscopic screening for superficial esophageal cancer in patients with HNSCC in Brazil. We compliment the authors for the large sample size of 1,888 patients with HNSCC with a relatively long median follow-up time. The authors reported a detection rate of 7.9% ESPTs by annual endoscopic screening and most ESPTs (77.8%) were early-stage lesions. The detection of advanced ESPTs was associated with a significantly shorter overall survival in patients with HNSCC, while early ESPTs showed no survival difference compared to those with HNSCC only. These results are promising and emphasize the need for further studies about screening patients with HNSCC for ESPTs.

Even in countries with a high ESPT incidence the absolute numbers are low, therefore many patients with HNSCC will not benefit from screening. For each individual patient, the benefits of screening (i.e. the detection of early ESPTs with potentially improved survival) should always be balanced against the harms of screening (i.e. the physical and psychological burden for patients and costs associated with screening). In the study by Nobre Moura et al. [3], patients with advanced HNSCC were excluded; however, both patients with and without treatment with curative intent were included. The balance of expected benefits and harms of screening is likely unfavorable in patients with a limited life expect-

tancy and these patients often do not opt for further treatment if an ESPT is detected. Therefore, we believe that risk-based patient selection is essential for effective esophageal screening in HNSCC patients.

The criteria of Wilson and Jungner assess the appropriateness of population-based screening [4]. In the study by Nobre Moura et al. [3], it is questionable whether the criteria for acceptable treatment and costs of case-finding in relation to the total health care costs can be met for all HNSCC patients. We believe that an individual approach based on the potential benefits and harms is essential. Given the low absolute numbers and the long timeframe over which ESPTs occur, proper risk assessment can only be achieved with use of population-based data with a long follow-up, such as those found in national cancer registries [5].

### Conclusions

In conclusion, this interesting study showed that annual esophageal screening in patients with HNSCC resulted in an increased detection of ESPTs, mostly in early stages. Further studies should focus on risk stratification of patients with HNSCC, taking into account all currently known risk factors and population-based data, to identify patients that will benefit the most from esophageal screening.

### Competing interests

Dr. Koch has received research support from DrFalk Pharma and consultancy fees from ERBE Elektromedizin and Pentax Medical.

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### References

- [1] Bugter O, van de Ven SEM, Hardillo JA et al. Early detection of esophageal second primary tumors using Lugol chromoendoscopy in patients with head and neck cancer: A systematic review and meta-analysis. *Head Neck* 2019; 41: 1122–1130
- [2] Arnold M, Ferlay J, van Berge Henegouwen MI et al. Global burden of oesophageal and gastric cancer by histology and subsite in 2018. *Gut* 2020; 69: 1564–1571
- [3] Nobre Moura R, Kuboki Y, Baba ER et al. Long-term results of an endoscopic screening program for superficial esophageal cancer in patients with head and neck squamous cell carcinoma. *Endosc Int Open* 2022; 10: E200–E208
- [4] Wilson JMG, Jungner G. World Health Organization. Principles and practice of screening for disease. 1968
- [5] Brands MT, Campschroer G, Merks MAW et al. Second primary tumours after squamous cell carcinoma of the oral cavity. *Eur J Surg Oncol* 2021; 47: 1934–1939

## Bibliography

Endosc Int Open 2022; 10: E1328–E1329

DOI 10.1055/a-1916-8878

ISSN 2364-3722

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Georg Thieme Verlag KG, Rüdigerstraße 14,  
70469 Stuttgart, Germany

