

Impact of the COVID-19 pandemic on surgery for thyroid cancer in Italy: nationwide retrospective study

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Dear Editor

The COVID-19 pandemic has presented a serious burden to public health. Italy has been affected heavily, with nearly 2 million confirmed cases and almost 70 000 deaths. Globally, healthcare authorities have restricted medical care to emergency procedures, postponing elective surgical activity^{1–5}. To evaluate the impact of restrictions on surgical activity for thyroid cancers in Italy, the Italian Society of Endocrine Surgery group and the Oncoteam of the Italian Society of Oncological Surgery undertook a retrospective analysis, comparing activity during the first wave of the COVID-19 pandemic (from 9 March 2020 to 31 August 2020) with activity during the same period of the previous year (control group). The study was registered at ClinicalTrials.gov (NCT04635813).

For this study, aggregated data were collected from 28 Italian surgical units, including patients who had undergone

thyroidectomy with a diagnosis of thyroid carcinoma during the reference intervals. The main outcome of this study was the reduction in surgical activity for thyroid cancer. Features of the neoplasms diagnosed, including tumour size and incidence of lymph node metastases, extrathyroidal extension and multicentricity, were also analysed, to identify any significant differences between the two groups.

A total of 1570 patients with thyroid cancer were included in the study; 662 patients with thyroid carcinoma had surgery during the COVID-19 pandemic, and 908 during the same period in the previous year. This represented a 27.1 per cent reduction in the number of operations (Fig. 1). The mean(s.d.) number of patients operated on per unit was 21.6(24.5) in 2020 and 23.6(21.6) in 2019 ($P=0.158$). Mean nodule size tended to be larger in the group that had surgery during the pandemic (18.4(13.5) versus 17.2(12.6) mm; $P=0.071$). The incidence of lymph node metastases (21.5 per cent in 2020 versus 18.1 per cent in 2019;

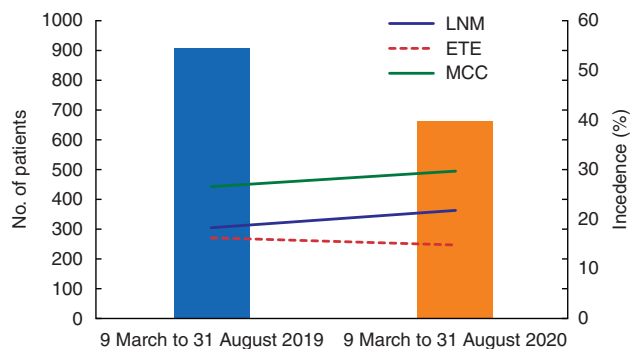


Fig. 1 Number of patients operated upon during 2019 and 2020, and incidence of lymph node metastasis, extrathyroidal extension and multicentric carcinoma.

Bars indicate number of patients and lines the incidence of lymph node metastasis (LNM), extrathyroidal extension (ETE) and multicentric carcinoma (MCC).

$P=0.107$), extrathyroidal extension (14.7 versus 16.0 per cent; $P=0.520$), and multicentricity (29.5 versus 26.4 per cent; $P=0.205$) did not differ between the two groups.

Overall, there was a reduction in thyroidectomies for thyroid malignancies during the COVID-19 pandemic. This reduction was, however, not significant, probably because elective surgery was reserved for the most aggressive thyroid malignancies rather than uncertain or benign thyroid disease during the most difficult phases at the start of the pandemic. With the weakening of the pandemic in the summer months, surgical activity was gradually restored. A greater proportion of aggressive tumours was not observed during the COVID-19 pandemic. Nevertheless, this aspect should be monitored carefully because the delay in screening programmes and planned examinations could lead to an increase in missed diagnoses in the future, with an increased number of aggressive tumours.

Considering the new escalation of the pandemic while this report was being written, healthcare organizations are urged to ensure prompt treatment for thyroid malignancies, including patients with suspicious nodules. The authors recommend not delaying screening programmes and planned visits, which could be moved to non-hospital settings.

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