PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	A review of recent treatment trends of laryngeal cancer in Poland:
	population-based study.
AUTHORS	Rzepakowska, Anna; Żurek, Michał; Niemczyk, Kazimierz

VERSION 1 – REVIEW

REVIEWER	Kevin Thomas Robbins Southern Illinois University Medical School USA
REVIEW RETURNED	15-Dec-2020

GENERAL COMMENTS	This retrospective population-based study was performed to determine trends for the choice of treatment for laryngeal cancer patients managed in Poland over a 10 year interval. The data was mined from a national registry for hospitalized patients including public and private admissions. The authors found that several treatment methods were used involving surgical and non-surgical techniques. The major observations were: the proportion of patients receiving a total laryngectomy decreased significantly over the decade; the proportion of patients receiving chemoradiotherapy increased; while endoscopic surgery also increased.
	Unfortunately, the authors did not have access to a national tumor registry and were thus unable to report outcomes based on treatment modality and tumor stage. However, the changes reported on proportions receiving total laryngectomy versus chemoradiotherapy is indicative of an increasing use of organ preservation therapy within the country.
	The report provides a general view for how patients with laryngeal cancer are treated within the country. This trend is similar to those of other western countries in which fewer total laryngectomies are being performed while being replaced with organ preservation protocols. While the registry allowed the authors to observe a relatively stable incidence of overall survival during the time interval, this could not be determined based on treatment modality. If so, the report would have greater significance given the concerns raised for applying aggressive organ preservation protocols outside of the clinical trial and academic setting.

REVIEWER	David Hamilton
	Freeman Hospital, Newcastle upon Tyne, UK
REVIEW RETURNED	22-Jan-2021

GENERAL COMMENTS

Introduction: excellent discussion of the current state of the literature, concise and informative

Methods:

"Patients were not involved in the study" is an odd start – they are all patients?

Otherwise good description of the search terms

Results

"The highest numbers of f hospital stays were recorded for C32.0 (24,208) as well as C32.8 and C32.9 (13,068 and 17,268 respectively)." Not very informative – say the diagnoses, not the codes

Incidence rates do not include a unit?

Throughout the results, the constant use of codes makes it nearly impossible to read. These should be described for the reader rather than the codes given.

The a data in the tables makes the data unnecessarily unwieldy – for example, in table two, is it sensible to divide up patients who have had a complete laryngectomy, en-bloc laryngeal resection, laryngopharyngectomy, radical laryngectomy etc, all could be grouped under the umbrella term of laryngectomy? For the purposes of the analysis I think this is acceptable. This is the same for the partial laryngectomies and the descriptions of radiotherapy.

There is overuse of tables. For much of the data, would graphs not be more appropriate representations of the trends rather than tables?

Throughout the use of unwieldy tables makes the relationship of the data to one another difficult. If it was possible to see a graph of the % of patients getting surgery, RT and CRT, and the trend of this over time, this would be very powerful

Discussion

Interesting, informative and fair

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Dr. Kevin Thomas Robbins, Southern Illinois University School of Medicine Comments to the Author:

This retrospective population-based study was performed to determine trends for the choice of treatment for laryngeal cancer patients managed in Poland over a 10 year interval. The data was mined from a national registry for hospitalized patients including public and private admissions. The authors found that several treatment methods were used involving surgical and non-surgical techniques. The major observations were: the proportion of patients receiving a total laryngectomy decreased significantly over the decade; the proportion of patients receiving chemoradiotherapy increased; while endoscopic surgery also increased.

Unfortunately, the authors did not have access to a national tumor registry and were thus unable to report outcomes based on treatment modality and tumor stage. However, the changes reported on

proportions receiving total laryngectomy versus chemoradiotherapy is indicative of an increasing use of organ preservation therapy within the country.

The report provides a general view for how patients with laryngeal cancer are treated within the country. This trend is similar to those of other western countries in which fewer total laryngectomies are being performed while being replaced with organ preservation protocols. While the registry allowed the authors to observe a relatively stable incidence of overall survival during the time interval, this could not be determined based on treatment modality. If so, the report would have greater significance given the concerns raised for applying aggressive organ preservation protocols outside of the clinical trial and academic setting.

We would like to thank you for this comment. Of course the possibility of simultaneous outcome analysis would have a significant contribution to the report. Unfortunately National Database of Hospitalized Patients maintained by the Polish National Health Fund does not include the survival outcomes. The incidence data of overall survival that was quoted in the introduction was derived from National Cancer Registry [2,3]. One of the formal observations of our analysis is the need to implement the strategy of interconnected registers, especially for oncological patients, which will enable much more accurate outcome analyzes in the future.

Reviewer: 2

Mr. David Hamilton, Newcastle University

Comments to the Author:

Introduction: excellent discussion of the current state of the literature, concise and informative

Methods:

"Patients were not involved in the study" is an odd start – they are all patients? Otherwise good description of the search terms

Thank you very much for this comment. Our intention was to stress the indirect collection of the data from the de-identified registry, what is explained in the next sentence. Therefore we resigned from this inappropriate statement.

Results

"The highest numbers of f hospital stays were recorded for C32.0 (24,208) as well as C32.8 and C32.9 (13,068 and 17,268 respectively)." Not very informative – say the diagnoses, not the codes

Thank you very much for this comment. We provided diagnoses for each code number throughout the text.

Incidence rates do not include a unit?

We calculated the cumulative incidence rates for all C32 new diagnoses.

(Table 1) *Incidence rate = no of all C32 new diagnoses / 100 000 citizens

Throughout the results, the constant use of codes makes it nearly impossible to read. These should be described for the reader rather than the codes given.

Thank you very much for this comment. We provided description for each code number throughout the text.

The a data in the tables makes the data unnecessarily unwieldy – for example, in table two, is it sensible to divide up patients who have had a complete laryngectomy, en-bloc laryngeal resection, laryngepharyngectomy, radical laryngectomy etc, all could be grouped under the umbrella term of

laryngectomy? For the purposes of the analysis I think this is acceptable. This is the same for the partial laryngectomies and the descriptions of radiotherapy.

We are grateful for this valuable comment. The reason for such detailed presentation of surgical procedures was mainly to demonstrate the changes of trends in procedures related to open partial laryngeal resections comparing to vocal cordectomies. We currently prepared cumulative version of table 2. for the manuscript and the detailed version will be attach as supplementary material.

There is overuse of tables. For much of the data, would graphs not be more appropriate representations of the trends rather than tables?

We provided two figures:

Figure 1. Different surgical procedures involving total laryngectomy, partial resection of the larynx or local destruction or excision applied to patients with laryngeal cancer in 2009-2018.

Figure 2. The proportional utilization of surgery, radiotherapy (RT) and chemoradiotherapy (CRT) in treatment of laryngeal cancer in Poland in 2009-2018.

Throughout the use of unwieldy tables makes the relationship of the data to one another difficult. If it was possible to see a graph of the % of patients getting surgery, RT and CRT, and the trend of this over time, this would be very powerful

Figure 2. is indeed a presentation of the percentage distribution of surgery, RT, CTH in particular years.

Discussion Interesting, informative and fair

VERSION 2 - REVIEW

REVIEWER	David Hamilton
	Newcastle University, UK
REVIEW RETURNED	03-Mar-2021

GENERAL COMMENTS	I think the manuscript has improved and I would recommend it for
	publication. It is interesting, large scale and informative