The toll of noninfected CRS patients to the COVID-19 pandemic*

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To the Editor:

Social distancing with the aim of avoiding infections and preserve critical care capacities during the COVID-19 pandemic has been implemented in Germany according to World Health Organization (WHO) recommendations [(1)] from early March onwards. Limitations of physical contacts to reduce exposure to SARS-CoV-2 infected individuals were handled strictly, particularly in medical centers dealing with airway diseases, like rhinology and pneumology clinics. Such measures and reluctance to visit out- and inpatient services resulted in a 82% decrease in consultations to the 12 German oto-rhino-laryngological (ORL) centres forming our database during the 50 days following March 09 in 2020 if compared to the same period in 2019 (n=3.547 vs. n=19.783; p<0.01). Follow-up consultations in known CRS patients were 78% less and new CRS patient consultations reduced by even 93%. CRSwNP disease severity (visual analogue scale 0-10cm; mean (SD)) increased from 6.09 (1.47) to 7.91 (1.18) (p<0.05). Our data show a decline of sinus surgery by 96%, since only emergency cases were to be performed. Regarding future procedures, 71% fewer indications were given and appointments made for sinus surgery. At the same time, complications in CRS increased fourfold (from 6 to 22 (p<0.01), but due to the low absolute numbers for e.g. endocranial complications 0 vs 1 (n.s.), (peri-)orbital abscesses 2 vs 6 (p<0.01), osseous complications 1 vs 7 (p<0.01). This might be ascribed to Gaussian noise and may not imply causality.

Total use of systemic corticosteroids (SCS) that are discussed to be an independent risk factor for COVID-19 [(2)] increased fourfold (mean daily prednisolone equivalent per 100 CRS patients from 23.4mg to 103.8mg; p<0.01), as did use of intravenous antibiotics (mean recommended daily dose per 100 CRS patients from 0.92 to 3.46; p<0.01).

Injections of Dupilumab almost came to a complete standstill. Dupilumab, a monoclonal antibody directed against the alpha subunit of the IL-4 receptor (IL-4Rα), thus acting as a dual antagonist of both IL-4 and IL-13 signaling pathways and T2 type inflammation was the first biological therapy that received regulatory approval in the EU and the US. Dupilumab is authorized in Europe as an add-on therapy to intranasal corticosteroids for the treatment of adults with severe CRSwNP, that cannot be adequately controlled with systemic corticosteroids and/or surgical intervention. Being reimbursed in Germany for CRSwNP since end of 2019, we started therapy with this biological in n=78 patients in the 50 days before the lockdown, but in only 9 new patients in the same time frame, thereafter.

Our data on CRS care underline reports on undertreatment of non-COVID-19 individuals with several different diseases during the current pandemic [(3)].

We should try to reduce the toll these patients have to pay as much as possible. In our experience, telemedicine is a way to cope this situation [(4, 5)]. Telemedicine training for self-injections of Dupilumab and subsequent patient monitoring is one of several fields of application in CRS [(6)]. We established telemedicine, e-Health and artificial intelligence-supported triage for selecting the right patients for onsite-consultations and to advise patients in several demands [(6)]. In an attempt to reduce collateral damage until calculated risk–benefit analyses are possible such approaches are needed in the COVID-19 pandemic. Sharing of knowledge may allow us to keep the high-quality standards of our health care in CRS patients.

Conflict of interest

We declare no competing interests.

Authorship contribution

LK and JH drafted the manuscript. AA, MS performed data collection and analysis. TH, KH and CM edited the manuscript.

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