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Skin cancer surgery at the time of the covid-19 pandemic: A single center experience

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ABSTRACT

Elective operations were significantly reduced in order to eliminate, as much as possible, the risks of SARS-CoV-2 virus infection for both patients and medical personnel and to leave the clinical facilities and intensive care available for access to COVID patients. We looked at the total number of patients treated for skin cancer surgery at both hospitals from the March 23, 2020 till the May 28, 2020, the demographic characteristics, the medical comorbidities, the pathologies operated on in day surgery regimens of care and the surgical outcomes. With regards to the site, more than one third of the patients were treated at a private hospital setting. Among the surgery complications identified there was one graft failure following excision of scalp lesion which histology confirmed regressed keratoacanthoma. Moreover, three infections associated with the lesions excised occurred and were treated with antibiotics. With regards to morbidity there was only one covid-19 infection among the patients that attended for skin cancer surgery and two deaths. The utilization of Covid-free locations, other than NHS hospitals, for elective surgery improved the efficiency of the service and together with the practical steps in theatre management and minimizing footfall, allowed the successful continuation of care during the pandemic.

1. Introduction

The first confirmed case of SARS-CoV-2 Coronavirus disease (COVID-19) in the UK was on January 29, 2020 and it was the 23rd March that the UK-wide “stay at home” lockdown commenced, restricting freedom of movement. COVID-19 created a dramatic burden in healthcare systems who had to set up new intensive care units and separate clinical pathways for infected patients [1]. Elective operations were significantly reduced in order to eliminate, as much as possible, the risks of SARS-CoV-2 virus infection for both patients and medical personnel and to leave the clinical facilities and intensive care available for access to COVID patients.

Skin cancer is the most common cancer in Caucasian population with significant morbidity and mortality [2]. Wide local excisions of basal cell carcinoma, squamous cell carcinoma and melanoma, represent a prominent part of the Oral and Maxillofacial surgery activities amongst units in the UK. Moreover, melanoma and non melanoma skin cancer (NMSC) are mainly diagnosed in the elderly population [3]. Coronavirus infection leads to complicated pneumonia especially in older patients and patients with comorbidities [4,5].

Anticipating complete redeployment of our staff and the inability to operate, we acted early and prioritized urgent skin cancer cases as early diagnosis and treatment is important for maximizing survival outcomes [6]. On the other hand, it is difficult to evaluate and prioritize skin malignancies because skin cancer ranges from slowly progressing types that can be monitored, to very aggressive forms that progress rapidly. A careful selection of patients who needed treatment as soon as possible was conducted by the consultants Oral and Maxillofacial Surgeons in our department. The risk of worsening of the disease within 30 days was the most important factor for prioritization.

During the pandemic, we reorganization the OMFS department in order to minimise the risk of COVID-19 infections among outpatients and staff. We were fortunate to be given theatre space at the private sector and in main theatres at Northampton General Hospital. We continued the clinics in our outpatient department taking all precautions possible, including limiting the number of patients attending to only to the ones treated for skin cancer, asking the patients to arrive at a designated time, alone, wearing appropriate Personal Protective Equipment (PPE) – typically a surgical face mask. Patients were also pre-warned about COVID-19 symptoms beforehand and advised to cancel their appointment should they develop any symptoms. We also asked the patients to self-isolate prior to attendance at the hospital. We kept the minimum number of staff present at both sites in order to run the service safely and...
efficiently. Finally, for the patients attending the NHS hospital we asked them to use the entrance located at the rear of the hospital in order to avoid high footfall within main corridors. Patients also had their temperatures checked prior to entering the department.

We analyzed the data for all the patients that were treated for skin cancer surgery between the March 23, 2020 until the May 28, 2020 focusing on complications related to COVID-19 infections among those patients that attended. The March 23, 2020 corresponds to the beginning of the UK national lockdown which significantly affected elective surgical procedures.

2. Materials and methods

Data was extracted from the Hospital Episode Statistics from the March 23, 2020 till the May 28, 2020. We looked at the total number of patients treated for skin cancer surgery at both hospitals, the demographic characteristics, the medical comorbidities, the pathologies operated on in day surgery regimens of care and the surgical outcomes.

3. Results

A total number of 58 patients were treated during the above-named period. The number of male patients were nearly double the number of the female ones (38 male compared to 20 female patients). The mean age of the patients was 75 years (standard deviation 12.9 years) and more than half (51.7%) of the study population were ASA grade 3. The most prominent diagnosis was Squamous Cell Carcinoma (SCC) (36.2%) (Table 1).

With regards to the site, more than one third of the patients were treated at a private hospital setting. Among the surgery complications identified there was one graft failure following excision of scalp lesion which histology confirmed regressed keratoacanthoma. Moreover, three infections associated with the lesions excised occurred and were treated with antibiotics. With regards to morbidity there was only one covid-19 infection among the patients that attended for skin cancer surgery and two deaths. One Covid-19 related infection occurred in an 84 years old patient who attended the maxillofacial outpatient department and was treated for an excision of a lesion in the scalp that histology confirmed Bowenoid actinic keratosis. The patient was tested positive for covid-19 approximately 2 months after his attendance at the department and he recovered fully. This is unlikely to be related to his hospital attendance. With regards to deaths, there were two noted. One occurred in an 89 year old patient who presented for excision of lesions on his temple and scalp. Both were histology confirmed SCC. This patient was treated in a theatre environment at the private hospital as a day case and discharged home following the procedure. He was previously diagnosed with clinically prostate cancer and was currently on hormone therapy. The patient was admitted to the hospital 6 days after the procedure and died the day after from aspiration pneumonia and cardiac arrest. The second death was related to a 63 years old patient previously diagnosed with advanced stage of lower rectal adenocarcinoma, advanced recurrent metastatic disease in the left lung, hilum and mediastinum that was treated for excision of an SCC at the scalp region at the Maxillofacial outpatient department. A few days later the patient represented to the department for revision of the local scalp defect due to dehiscence of the initial area of surgery. Unfortunately, the patient died 1.5 months from the last visit to the department due to advanced progression of his metastatic colorectal cancer. This was unrelated to his skin cancer surgery.

4. Discussion

We faced probably the most difficult pandemic of modern times, and the challenge was to balance the risks and benefits of confirming the diagnosis, avoiding a worse impact on life-long prognosis or postponing skin cancer surgery. There are only a few papers in the literature reporting on the skin cancer surgery during the first wave of the Covid-19 pandemic. In our study the most common lesion excised was SCC whereas in other studies the most common lesion excised was melanoma [7]. The study population with head and neck lesions was smaller compared to our study. included less patients with lesions in the head and neck region. There was only one associated COVID-19 disease infection that occurred nearly 2 months after the visit in the department and it is highly unlikely that it was related to that. None of the patients treated developed any symptoms of COVID-19 in the 3–6 weeks following the procedure. This speaks to the efficiency of the PPE and the physical distancing that reduced the risk of transmission and kept the patients safe and in the meantime avoided the rapid progression of the cancer disease.

Asymptomatic healthcare staff constitute an under-appreciated potential source of infection, to other members of staff as well as to the patients[7,8]. Only symptomatic healthcare staff were offered testing during that time. Availability of screening tests for staff would be a desirable adjunct to our current measures to reduce disease transmission.

The utilization of Covid-free locations, other than NHS hospitals, for elective surgery improved the efficiency of the service and together with the practical steps in theatre management and minimizing footfall, allowed the successful continuation of care during the pandemic. As we expect COVID-19 will continue to affect life for the considerable future, we hope that the results of this report can be used when considering oncological risk of delaying surgery versus covid-19 transmission for patients that need treatment.

By putting all of the above safety measures in place, we believe we can provide a safe environment where patients and staff can feel confident in proceeding with elective surgery under local anesthesia. These adaptations gave us important lessons that we aim to take forward in the post-COVID era.

Ethics statement/confirmation of patient permission

Not applicable.

Declaration of competing interest

No conflicts of interest.
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