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Psychiatric manifestations of head and neck cancers as seen in a private tertiary hospital in South West Nigeria.

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Abstract

Background: Psychiatric problems of patients with head and neck cancers usually result from disfiguring, illness and treatment, adjustment to alterations of speech, eating and other functions including sexual activity. Alteration of body image, speech and eating are often seen. Psychiatry co morbidities are generally common findings in head and neck cancer patients. The major associated psychiatric disorders in them are anxiety and depression.

Materials and Methods: Reports of four of our patients diagnosed of Head and Neck Malignancies who developed psychiatric symptoms in the course of treatment are presented. The medical records of the patients were retrieved, information sought included bio-data, clinical and histological information as well as treatment progression.

Results: A 55 y old male with transglottic malignant laryngeal tumor developed severe depression in the course of treatment. A second 45 y old male diagnosed of a malignant sinonasal tumor developed Chemotherapy induced psychosis to rule out a frontal lobe syndrome. The third 44 y old female with malignant sinonasal tumor developed low mood while on treatment but did not meet the criteria for a psychiatric illness. The 4th, a 76 y old male diagnosed of a malignant laryngeal tumor became delirious following diagnosis and did not take up the treatment offered.

Conclusion: The tendency for patients with head and neck tumors to develop psychiatric disorders in the course of management is high on account of visible changes in body structures and limitations of functions.

Recommendations: There is the need for a multidisciplinary approach and the relevance of psychiatrists and psychologists in pretreatment evaluation as well as in the course of treatment.

Keywords: Head and neck cancers, Chemotherapy, Radiotherapy, Depression, Frontal lobe syndrome.

Introduction

Cancers of the head and neck represent the sixth most common type of cancers [1]. They are generally more common in males and risk factors are associated with carcinogenic agents like smoking

and alcohol consumption. Psychiatric co morbidities are generally common findings in head and neck cancers (HNC) [2]. Although cancers generally affect the psychology of patients, this is especially true in malignancies of the head and neck as they are located in a highly visible region of the body [3]. The major associated co morbidities are anxiety and depression with the latter being far more common [4]. A review of literature shows a prevalence rate of depression in patients with HNC as varying between 6% and 48% [5]. This wide discrepancy in rate has been associated with location of the tumor, stage of the cancer, presence of pain, the methods of investigations, time points of assessment and existence of social support among others [6]. Similarly, head and neck surgeries for cancers may involve major resection, functional and aesthetic mutilations that can impact in the daily life of patients [7]. Chemotherapy and radiotherapy that are also used as adjutants to inhibit metastases and improve survival rates also have significant physical and emotional effects on the patients. The need for a multidisciplinary approach in the management of these patients cannot be over emphasized as inputs from the head and neck surgeon, oncologist and psychiatrist are required for a comprehensive approach to treatment [8].

We present a case series of four patients with head and neck malignancies with psychiatric co morbidity managed in Babcock University Teaching Hospital, a private tertiary hospital in South West Nigeria.

Case 1

Mr. O.P, a 53 year old male Nigerian who presented with a one year history of hoarseness and a seven month history of dysphasia as well as progressive dyspnea of three months.

Hoarseness was initially mild but progressively worsened while dyspnea which initially occurred while lying supine and on exertion but it progressed to occurring at rest. There was history of weight loss, loss of appetite and symptoms of anaemia.

Examination at presentation revealed a middle aged asthenic man who was mildly pale. Voice was hoarse but patient had no obvious respiratory distress.

Fibreoptic laryngoscopy done revealed a transglottic laryngeal tumor. He had tracheostomy done and subsequently, direct laryngosopy and biopsy done which showed a transglottic tumor involving the right hemi pharynx with fixation of the right vocal cord.

Histopathology of biopsied tumor made an assessment of well differentiated squamous carcinoma. He was referred for radiotherapy. While on the course of radiotherapy, he developed a pharyngocuteneous fistula. He subsequently had savage laryngectomy done on account of advanced laryngeal cancer with pharyngocuteneous fistula.

About two days after the surgery, he was observed to be talking out of context and had low mood and was seen to be saying he was tired of life. A consult was sent to the mental health team who made an assessment of severe depression with suicidal ideation.

He was subsequently commenced on tab sertraline 50 mg daily, psychotherapy and close monitoring. Patient had episodes of aspiration through the pharyngocuteneous fistula necessitating a feeding gastrostomy.

He was discharged home after care giver was taught how to care for the tracheostomy tube and gastrostomy site.

Case 2

Mr. A.R, 45 year old Nigerian who presented on account of right nasal obstruction of eight months duration which persisted despite the use of several medications.

About five months afterwards, he observed a swelling on his right nasal bridge. It was initially pea sized but progressively increased in size. The swelling became ulcerated. Proptosis of the right eye was observed and was associated with reddening and excessive lacrimation. There was loss of the sense of smell and recurrent headache. There was no history of vomiting and weight loss. He had no history of smoking or use of alcoholic beverages.

Examination revealed a middle aged man with an irregular mass on the face extending from the nasal bridge to 3 cm above the glabella. Mass had a firm consistency with a punctum noted close to the right epicanthus discharging serous effluent. Other systems were essentially normal.

An assessment of sinonasal tumor was made. Computerized tomography Scan (CT scan) done revealed sinonasal tumor with intracranial and intraorbital extension.

Fibreoptic naso endoscopy and biopsy was done in the clinic and histopathology done made an assessment of poorly differentiated carcinoma and patient was worked up for surgery. MRI done as part of preparation for the surgery showed an increased intracranial and intraorbital extension. Patient was counseled on the need for neo adjuvant radiotherapy which he declined on account of financial constraints. He was however commenced on neo adjuvant chemotherapy consisting of Cisplatin and 5 Fluorouracil. He was commenced on a 6 cycle regimen –one week every month till the completion of 6 cycles. First cycle was uneventful, however while he was on admission for the second cycle, he was observed to be withdrawing to self and refusing feeds. He was also noticed to be exhibiting irrational behavior like wandering on the ward corridor indiscriminate removal of his clothes and under garments and inappropriate behavior like urinating on the ward. The mental health team was invited to review him and they made an assessment of chemotherapy induced psychosis to rule out frontal lobe syndrome.

After the second cycle of chemotherapy, patient did not complete the third and fourth cycles and he subsequently departed against medical advice and all effort to persuade him to return for further care proved abortive.

Case 3

Patient is Mrs. A.O, a 44 year old Nigerian who presented with epistaxis of one year duration, recurrent nasal discharge and feeling of nasal obstruction of eight months and visual impairment of two weeks duration.

She was in her usual state of health until about a year prior to presentation when she began having episodes of bleeding from her right nostril. Volume of bleed per episode usually ranges between 10 to 20 ml and usually resolves spontaneously.

About eight months prior to presentation, she began experiencing persistent nasal discharge with nasal obstruction worse on the right. Discharge was predominantly mucoid, foul smelling with history of passage of fleshy materials from the nose. Symptoms sometimes resolve with the use of decongestants but subsequently recur.

About four months prior to presentation, she began having persisting headache which is predominantly frontal, initially worse in the morning but resolves as the day progresses.

Two weeks prior to presentation, she observed a rapid decline in her vision. Her vision deteriorated to the point where she needed help to move around.

Examination revealed a middle aged woman, who had bilateral proptosis and obvious nasal deformity with purulent discharge from both nasal cavities and on eye examination, patient could only perceive light.

CT scan made an assessment of sinonasal tumor and was worked up for examination under anesthesia and biopsy. Histopathology of sample obtained revealed a keratinizing squamous cell carcinoma.

After the surgery, patient was observed to have low mood and the mental health team was invited to review. After the review, although patient's mood was low, she did not meet the criteria for a psychiatric illness. She was subsequently referred for radiotherapy.

Case 4

Patient is Mr. O.G, a 76 year old Nigerian who presented with hoarseness of a year duration, progressive respiratory difficulty and weight loss of three months duration.

He was in his usual state of health until about a year prior to presentation when he developed hoarseness which was initially mild but progressively worsened and became associated with difficulty in breathing which was worse on lying supine. Had history of progressive dysphasia with associated loss of appetite. Progressive weight loss was observed about three months prior to presentation. No history of smoking or use of alcoholic beverages. He was a farmer who had used herbicides for years on his farm.

On examination, he was elderly and in obvious respiratory distress with sub mandibular lymph node enlargement.

An assessment of suspected laryngeal tumor with imminent upper airway obstruction was made. Patient had emergency tracheostomy, examination under anesthesia and biopsy done. Histopathology of tissue revealed a moderately differentiated invasive squamous cell carcinoma. Two days after surgery, he was observed to be restless and was repeating words. The mental health team was invited to

review and an assessment of delirium was made and patient was started on parenteral Haloperidol.

Patient was referred for radiotherapy but refused on account of financial constraints and subsequently departed against medical advice.

Discussion

The diagnosis of cancer usually becomes a watershed event in the lifetime of an individual. This is usually accompanied by feelings of disbelief and despair as well as fear for potential pain and suffering alongside protracted and debilitating treatment and finally death.

Psychiatric co morbidities are commonly seen in the early phase of treatment usually in the first six months of diagnosis and commencement of treatment. The commonest being anxiety disorder with symptoms of overwhelming information, distractibility and poor sleep. This has been found in 27.3% of people prior to the commencement of treatment but declined to 3.3% within 6 months [9]. Conversely, depression had an irregular pattern reaching a peak at three months and declining to pretreatment levels afterwards [10].

People who have been diagnosed with malignancies of the head and neck not only face a potentially life threatening disease condition but have to endure treatment that often results in significant and debilitating changes.

It is believed that one in four terminally ill patients have symptoms of depression but that up to 80% of depression may not be recognized and is thus untreated [11]. Common symptoms includes loss of sexuality, appetite, body weight and sleep [12].

It is however of note that while a diagnosis of a malignancy comes with patients and relations anxiety, the stage of the tumor at presentation which also affects details of surgical intervention, chemotherapy and potential loss of function contribute in no small measure to the patients acceptance or otherwise in the course of treatment.

It is generally established of the health seeking behavior in our environment is poor and affected by faith, poverty, education and access to appropriate care. The resultant effect is that many of the patients present in late stages at which point treatment could either be radical or at best palliative.

As at 2004, depression was identified as a leading cause of disease and disability worldwide and can also affect the course and outcome of chronic diseases like cancer, diabetes and obesity [13]. The frequent association between depression and clinical illnesses is usually accompanied by lower adherence to therapeutic guidelines as well as increased morbidity and mortality. In oncology, depression is associated with a decline in survival and adherence to treatment leading to a worse prognosis [14]. This is especially true in the second case presentation where patient declined chemotherapy during the second course and departed against medical advice and was later heard to have died at home some months later. On the other hand, anxiety is generally more common prior to commencement of treatment [9,15] and this was seen in all of the cases reported and the symptoms started manifesting immediately the diagnosis was made. Patients were anxious about the illness, the management plans, the possibility of failing to achieve a cure and the likely complications they might experience from the treatment.

Prateek Yadav et al. in a hospital based study carried out on the Prevalence of depressive disorders among head and neck cancer adult patients found that 49% of the patients suffered from major depressive disordered (MDD), 13% had MDD with melancholic features and 10% had dysthymia [16]. Yi-Shan Wu et al. in a six-month follow-up study of anxiety and depression in patients with head and neck cancer in Kaoshiung Chang Gung Memorial Hospital in Southern Taiwan Jan 2011-jan 2012; high rate of anxiety were found at pretreatment which steadily declined over time from 27.3% to 6.4%and later 3.3%, however a skewed pattern of depression was observed from 8.5% at pretreatment to 24.5% and 14% at 3 and 6 months respectively [17]. Ji Hyae Lee et al. in 2019 in Association of Head and Neck Cancer with Mental Health Disorders (MHD) in a large insurance claim database found that the prevalence of MHDs in patients with HNC increased to 29.9% compared to 20.6% before cancer diagnosis [18].

One of our patients had chemotherapy induced psychosis. Psychiatric disorders in patients are rarely regarded as medication side effects because they are not common and the presence of the background illness and other co morbidities makes such assertions difficult to make categorically [15]. However incidences of similar diagnosis had been seen in patients who like the patient in case

2 had Cisplatin based chemotherapy [15]. There was no history of previous mental illness, use of recreational drugs, smoking or alcohol consumption. Although the intracranial extension of the tumor makes frontal lobe syndrome a strong differential diagnosis in this case, the fact that the psychotic symptoms and irrational behavior only started at the commencement of the chemotherapy makes chemotherapy induced psychosis a more likely diagnosis. The symptoms were so distressing that the caregivers who witnessed them also supported the patient's decision to discontinue the chemotherapy regimen. Proceeding with chemotherapy in the presence of obvious side effects versus stopping it to allow for a better quality of life for the patient often times remains a medical dilemma.

Conclusion

The treatment of patients with head and neck cancers remained largely inadequate without active participation of psychologists and psychiatrists from the period of diagnosis alongside other specialties like the oncologists, speech therapists and other if the quality of life and survival rate must improve.

The diagnosis of depression and other mental health disorders in cancer patients goes undiagnosed due to inadequate investigation of the mood symptoms, costs associated with the treatment, poor collaboration between mental health specialists and oncologists working separately thus leading to increased suffering in these patients. The high prevalence of mental health disorder in head and neck malignancies should raise a high index of suspicion among all practitioners and all patients with such head and neck cancers should be evaluated periodically for better outcome.

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