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COMPLICATIONS AFTER THE TREATMENT OF LARYNGEAL CANCER IN A PARANOID SCHIZOPHRENIA PATIENT

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SUMMARY

Background:

The aim of the work is to present an analysis of the diagnostic-treatment process in a psychologically disturbed patient with a deteriorating somatic state as well as showing the possibility for communication with this patient despite the difficulties in verbal means of the said.

Case study:

A 65-year old patient, a bachelor with secondary education, had been treated for paranoid schizophrenia (acc. ICD 10) since he was 38 years old. He had been hospitalized in psychiatry wards many times. From the age of 48 he was housed in a residential medical care facility. The medical personnel noticed disturbances in the process of swallowing, bleeding from the mouth as well as attempts at mechanically passing the foods given through the throat. The patient did not report or confirm the presence of any symptoms whatsoever. The patient was diagnosed as having laryngeal cancer. As a result of the patient's poor psychiatric state and the inability for close cooperation to be conducted in the post-operational period the patient was disqualified from surgical and radiological treatment. The patient was administered a tracheotomy tube, which he removed repeatedly while attempts at replacing the tube induced the patient's active verbal and physical aggression. From the very beginning of his stay in the unit verbal contact with the patient had been difficult. He often resorted to non-verbal communication (facial grimaces, nodding his head, waving his hand). Following the diagnosis of the cancer there was observed in the patient an intensification in behavioural disturbances (self aggression, verbal and physical aggression). Tracheotomy made the verbal communication process worse and resulted in the appearance of features of a depression syndrome. Throughout the duration of the cancer treatment of the throat anti-psychotic treatment was continued in addition to the implementation of systematic psycho-education, despite a lack of interest on the part of the patient.

Conclusions:

It can be concluded, on the basis of the case described above, that the early detection and administration of an effective treatment that would offer hope for a cure of a malignant tumour are very difficult in patients with severe mental disorders. The authors' application of the AIS is innovative. Its use has helped to demonstrate that continuous psychotherapeutic and rehabilitation efforts (and the associated determination and commitment of staff) have a significant effect on illness acceptance and the process of cancer treatment even in individuals with mental disorders. A higher level of self-acceptance of a mental condition contributes to an improvement in the evaluation of a treatment administered. Modifying the pharmacotherapy of a mental disorder may become an important factor in improving cooperation with and the self-appraisal of a patient. A tracheotomy tube may impede interpersonal communication in chronic schizophrenia patients with a prevalence of adverse symptoms.

Key words: communication, disease acceptance, laryngeal cancer, paranoid schizophrenia

INTRODUCTION

Neoplastic conditions are the second most common cause of death in Poland and pose a growing demographic, social and economic problem [1]. Laryngeal cancer accounts for approximately 40% of head and neck tumours. It most frequently develops between 50 and 60 years of age; in males more often than in females. Tobacco smoke and alcohol are the causes responsible for more than 90% of the cases of laryngeal cancer. Preventative testing, early diagnosis and adequate treatment help to prevent the transmission of a precancerous condition into a full-blown cancer. Early detection allows for effective treatment in 90% of cases. Squamous carcinoma is the most commonly diagnosed malignant larynx tumour (approximately 95% of cases). The most common symptoms of pharyngeal and laryngeal cancer include: hoarseness, sense of a foreign body, sore throat (with pain often radiating towards the ear), shortness of breath, difficulties in swallowing (initially ignored by a patient), choking (normally in the more advanced stages of the tumour), coughing, haemoptysis, metastasis to the lymph nodes (this is occasionally an early symptom). Patients who have suffered from sore or hoarse throats that do not respond to antiphlogistic treatment after more than two weeks should undergo a laryngological examination. The latest imaging techniques play a key role at all stages of neoplastic treatment helping to: recognise sub-clinical lesions within lymph nodes, differentiate remissions, plan and monitor chemo- and radiotherapy [2]. A combination of surgical and radiotherapeutic treatment with or without chemotherapy is the therapy of choice for laryngeal cancer. Progress in therapies of head and neck tumours has failed to improve recovery significantly, partly due to a high percentage of local recurrences of the neoplastic process [3]. Tracheotomy is a life-saving surgical procedure. It also proved to be the only possible way to help the patient described below, a mental case with a concomitant larynx tumour who would not cooperate in the process of treatment. Breathing through a tracheotomy tube is not accompanied by physiological protective mechanisms and induces; drying of the respiratory pathways, excessive secretions, insufficient evacuation of mucous deposits, breathing of uncleaned air, an increased susceptibility to infections of the lower airways.

CLINICAL CASE

A 56-year old patient, a bachelor with secondary education, had been treated for paranoid schizophrenia (acc. ICD 10) since he was 38 years old. He had been hospitalized in psychiatry wards many times. From the age of 48 he was housed in a residential medical care facility. The catamnesis showed a linear, chronic and severe schizophrenic process. The clinical picture demonstrated some residual positive symptoms of perceptiveness (the patient's behaviour showed that he had auditory hallucinations) and thinking (the patient periodically and spontaneously expressed delusional contents), limited interpersonal contact, declining interest in himself and his surroundings, poor social adjustment. The

patient had not been treated for chronic somatic conditions. He had smoked for years (about 20 cigarettes a day).

Some worrying symptoms of swallowing difficulties were noted in the patient in April 2013: choking, periodic bleeding from the mouth and attempts at the mechanical shifting of food through the throat. The patient did not report or confirm any complaints. A laryngeal cancer (carcinoma planoepitheliale, G-2) was diagnosed following a laryngological consultation and some additional testing. The patient was administered a tracheotomy tube. He removed it repeatedly because of communication issues and the desire to smoke. Attempts at replacing the tube required the assistance of an anaesthesiologist or laryngologist and induced the patient's active verbal and physical aggression against those undertaking the medical interventions. Periodic bleeding from the airways caused short hospitalisations. In June 2013, the patient was disqualified from surgical and radiological treatment due to his poor mental condition and the impossibility of close cooperation following surgery. Palliative care was offered. The tube was attached to the skin at the time of another re-tracheotomy. This prevented its removal in spite of the patient's continuing attempts. Increased releasing and difficulties expectorating saliva and respiratory secretions were observed. The patient's diet was modified (to gruel) as swallowing problems persisted. The patient fainted in August 2013. A resuscitation was ineffective. The patient had been administered clozapine (the dose was reduced from 600mg to 500mg/day due to enhanced saliva production) and valproic acid (600mg/day) for the entire duration of the laryngeal treatment.

Verbal contact with the patient was hard to initiate and maintain from the beginning of his stay at the residential medical care facility. The patient was quickly distracted and he answered questions in an off-hand way, almost automatically, resorting to stereotypes. His speech was fast and hard to make out. He often used non-verbal messages (grimacing, nodding, waving) in a conversation. He avoided contact with other patients. He was self-centred, did not get involved in the affairs of the community. He was not willing to take part in psychoeducational activities – often an active part - responding to a psychologist's questions. Attempts at an integrated psychological analysis failed as he refused to collaborate. Self-aggression and (verbal and physical) aggression against others, reluctance to accept any assistance and reluctance to cooperate intensified after the neoplastic condition was diagnosed. An Acceptance of Illness Scale (AIS) testing was undertaken which assesses or attempts to assess difficulties and limitations caused by an illness. The total AIS score (in the range of 8-40 points, the average being 20 SD) is a measure of illness acceptance [4]. The patient scored low (8 points), an indication of: lack of acceptance of his somatic condition, reluctance, a hostile attitude to himself and his environment. A systematic psycho-education was carried out at all times, despite the patient's lack of interest, in order to enhance the patient's commitment to the therapeutic process by improving his knowledge of the aetiology of the mental and somatic conditions, their symptoms and potential for therapy. As part of the activities, the patient was also instructed in stress management techniques; when improvement of his communication with

the environment and problem perception and solving skills were concentrated on. A psychologist saw the patient five days a week, 3-4 times a day for up to 15 minutes every time. Their conversations concerned: information about the current mood and plans for a given day, mobilisation for everyday activities, working to accept his appearance, differentiation and control of adverse emotional responses. Added to all that, the patient undertook twice weekly training targeted at improving his functioning post the tracheotomy. Another AIS was conducted after six weeks and the score (15 points) exhibited a variable trend towards a positive attitude, acceptance of the current condition and the possibility of living with limitations imposed by the somatic illness.

The patient relied on non-verbal communication, as a rule, since verbalisation was very difficult. The patient was unable to speak in a comprehensible manner, which angered and irritated him and discouraged him from continuing a conversation. Verbal communication improved each time the tracheotomy tube was removed. Symptoms of a depressive syndrome could additionally be noted post the tracheotomy: depressed mood and emotional deficit in spite of an affective pallor (e.g. he didn't smile like he used to); withdrawal from everyday activities; reluctance and refusal to make contact with his family; reduced appetite; presence of resigned and suicidal thoughts, confirmed non-verbally by the patient; disturbance of the daily sleep and waking rhythm by sleeping for shorter periods. Attempts at cutting down on the number of cigarettes induced aggressive behaviour towards both other patients and staff.

Treatment of laryngeal cancer is complicated by cosmetic defects, impact on somatic health, mental and social functions. Lockjaw is common in patients treated for laryngeal carcinomas. About 50% of patients have difficulties opening their mouth. Laryngectomy patients most often report: changes in voice (90%) and speech (83%); dryness in the mouth cavity (62%) [5]; increased production of saliva (66%) [6] and nose secretion (38%) [7]; smell (63%) and taste (15%) disturbances [7]; eructation (45%) [7]; problems with interpersonal communication (reported by 57% of patients and 29% of their family members); depression (42%); loneliness (30%); shame due to changes in voice (30%) and appearance (32%) [6].

The survival rate among malignant tumour patients with mental disorders is 50% lower than in the population without concomitant mental conditions [8]. This is due to a range of factors. Absence of or only unwilling cooperation in the process of diagnosis, therapy and treatment (a considerable challenge to those involved in treatment, rehabilitation, care of and support for mental disorder patients) are of major importance. Communication issues, which delay diagnosis of a cancer and thus reduce the chances of a cure, are another key factor. Effectiveness of the communication process depends on two fundamental forms: verbal and non-verbal communication. They are concurrent and supplementary, except for reading and listening to the radio. The communication process is restricted to the verbal form – participants in the communication process are deprived of eye contact [9]. Verbal messages are normally conscious, voluntary, content-oriented, may be comprehensible or unclear, culture-bound, and/or their

message may be interrupted. Non-verbal messages, on the other hand, are frequently unconscious, relational, ambiguous, biologically shaped, 'ever flowing' [10]. Choice of messages and their correct reading from non-verbal signals sent by a mental patient are important. The objective of the communication process is to improve cooperation, not communication, since levels of mutual understanding are impossible to verify objectively or to observe directly. Cooperation is intended to realise the joint undertakings or goals of each separate participant in the communication process which require a form of action by other parties, though [9]. Failure of interpersonal contacts by patients treated for schizophrenia may be a result of disturbed social awareness. This may give rise to misinterpretation of the environment's intentions and lead to social isolation [11]. Linguistic disorders, poverty of speech and content intensify as an illness progresses [12]. These disorders are more common and intense in patients with persevering schizophrenic processes [13]. Research into schizophrenia indicates failures of the communication process, both in family and social relations and those necessary in diagnostics, therapy and rehabilitation [14]. Loughland et al. describe a pilot programme of practising communication skills addressed to medical specialists in psychiatry. Training modules are adapted to diagnostic issues and schizophrenia prognosis. Testing demonstrated that such training is reasonable as it improves the critical evaluation of their own communication skills among participants in the programme [15]. New communication technologies, for instance texting or emailing, are in increasingly common use to improve communication with mental disorder patients. Contribution of communication technologies (texting, emailing) to improving communication and cooperation with schizophrenia patients has been analysed and compared to standard methods of communication. Tests available in the Cochrane database from May 2011 to 2012 have been reviewed. No impact of messages based on ICT (Information and Communication Technologies) on improving cooperation with systematic treatment has been confirmed (during six months of observation). An analysis of the effect of ICTs on the intensification of: psychopathological symptoms (three months' observation), depression symptoms (six months' observation), overall functioning (three months' observation), adverse symptoms (three and six months' observation) has produced ambivalent results. A positive correlation between appearance and quality of life has been observed in individuals receiving ICT-based messages when compared to the control group (six months' observation). Divergence of the results shows further exploration of the area is required [16].

Reduced ability to sense and categorise pain is another factor lowering survival rates of mental patients suffering from malignant tumours. Experience of pain by a healthy population triggers powerful emotional mechanisms, which are distinctly disturbed in the schizophrenic process [17]. Besides, the experience of threshold-level pain is negatively correlated with positive symptoms of the pathological process [18].

Specialist literature offers analyses of the impact of laryngeal cancer treatment on: mental state, communication, addictions, illness acceptance and/or overall

functioning. This research covers populations free from mental disorders in spite of common refusals to join clinical testing [7]. During ten-year-long observations, Mallis et alia failed to detect the effect of laryngectomy on mental condition. Researchers claim quality of life depends not on the time since a laryngectomy but on functional disability [19]. A different opinion is offered by Danker et al. who showed that: 87% felt stigmatised on account of their voice changes, 50% were ashamed of their tracheotomy, and 33% were afraid and depressed and refused to take part in community life. The authors also proved that withdrawals from social contact were caused by either a depressive syndrome and incomprehensible speech or fear and stigmatisation [7]. Bussian et al. employ Structured Clinical Interview for DSM – IV (SCID) to diagnose the mental disorders of 17.3% patients post a partial and 22.2% patients post a total laryngectomy. They also show a positive correlation between age and comprehensibility of speech and the presence of mental disorders in a population of patients after a partial laryngectomy [20]. An interesting investigation was conducted by Sharma et al. who evaluated the presence of irregular personality traits in pre-laryngectomy individuals by means of the Personality Trait Inventory (PTI). Some patients were diagnosed with irregularities in at least three areas (cyclothymia, depression and dominance). All the individuals were then subjected to speech therapy. Those diagnosed with personality disorders were additionally subject to psychotherapy. Another PTI demonstrated improvement in both the groups [21]. Schindler et alia have attempted to assess the impact of (partial or total) laryngectomy on communication by adapting a self-appraisal questionnaire to a population of Italian patients [22]. Mallis et al. point out that treatment of concomitant conditions (diabetes, hyper-pressure, prostate conditions) adversely affects verbal communication post treatment of laryngeal cancer [19]. Danker et alia observe that 25% of laryngectomy patients have changed their diets due to difficulties swallowing solid food [7]. 91% of laryngectomy patients in the healthy population have quit smoking [7]. Zboralski et al. have evaluated the impact of self-perception and self-acceptance on therapeutic effectiveness in patients treated for somatic (diabetes) and mental (depression) disorders using ACL (Adjective Check List). They note therapeutic effectiveness is related to a patient's self-acceptance and self-image. Moreover, patients with higher self-acceptance have made greater improvements after treatment in both groups of patients [23].

Specialist literature does not contain any parallel analyses of mental disorder individuals. Only the case of a 76-year-old laryngeal cancer and schizophrenia patient who had smoked for 20 years through a tracheotomy tube placed after a throat lesion is described [24].

CONCLUSIONS

On the basis of the case described above it can be concluded that early detection and administration of an effective treatment that would offer hope for the cure of a malignant tumour are very difficult in patients with severe mental dis-

orders. The authors' application of the AIS is innovative. Its use has helped to demonstrate that continuous psychotherapeutic and rehabilitation efforts (and the associated determination and commitment of staff) have a significant effect on illness acceptance and the process of cancer treatment even in individuals with mental disorders. A higher level of self-acceptance of a mental condition contributes to an improvement in the evaluation of a treatment administered. Modifying the pharmacotherapy of a mental disorder may become an important factor in improving cooperation with and the self-appraisal of a patient. A tracheotomy tube may impede interpersonal communication of chronic schizophrenia patients with a prevalence of adverse symptoms.

Pre-operative personality assessment of all patients qualifying for laryngeal cancer surgeries would assist with modifying treatment processes at their early stages. This would in turn markedly enhance the effectiveness of psychotherapeutic and rehabilitation efforts and have a positive influence on the physical, mental, professional and social rehabilitation of post-laryngectomy patients.

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