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The structure of a group of adult disabled patients treated dentally under general anesthesia

Abstract

Introduction. Adult disabled people, including mentally handicapped ones, constitute a very serious medical problem in both general and specialist medical care, including dentistry. Dental treatment under general anesthesia is the most recommended for this group of patients.

Aim. The aim of this study was to analyze the structure of a group of adult disabled patients treated dentally under general anesthesia.

Material and methods. The study was conducted among 147 disabled people, 61 females and 86 males aged 18-56 (the average age – 26.69) from the Lubelskie Voivodeship, qualified for dental treatment under general anesthesia. The survey was based on interviews with the family members or social workers. The questionnaire included the information concerning general diseases, age, gender, place of residence and the kind of care (family or social welfare institutions). Special attention was paid to the previous dental treatment performed in outpatient clinics or under general anesthesia.

Results. The study involved a group of 147 people, including 58.50% males and 41.50% females. The average age of the patients was 26.69 ± 6.41 years (ranged from 18 to 56). The patients from a big city accounted for 40.14%, 23.13% of the subjects came from a small town, and 36.73% of the people came from the village. The largest group of patients included people with mental disabilities – 54.43%. Most people (87.76%) lived with their family, while 12.24% were the residents of social welfare institutions. The analysis of the data reveals that for 89.80% of patients, it was their first dental treatment under general anesthesia, and for 10.20%, a subsequent one. Studies have shown that early treatment in outpatient clinics was performed in only 27.21% of treated people, while 72.79% have never been treated in a dental surgery.

Conclusions. Mentally handicapped people were the largest group of patients treated dentally under general anesthesia. Patients living in the urban areas and under the care of families were more often treated dentally under general anesthesia. Because of the lack of cooperation between disabled patients and the dentist, the complete dental treatment under general anesthesia is the most effective therapy. Adult disabled patients require special dental care.

Keywords: The adult disabled patients, dental treatment, general anesthesia.

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INTRODUCTION

Disability, despite its causes, is a serious social problem and one of the most important aspects of the evaluation of the human health condition. Although there have been many legal attempts to improve the availability of medical care for the population of the disabled, numerous barriers and limitations still exist. They concern such aspects of life as law, transport, information, medicine, economy, and access to public buildings.

Both domestic and foreign authors of numerous research works, pay attention to the medical needs of the disabled and the existence of various limitations connected with the access to medical and dental services [1-3].

Statistics shows a constant increase in the number of disabled people, including mentally handicapped ones, who suffer from advanced, acute, and chronic pathological disorders

concerning dentition and periodontium [4]. This group of patients requires a systematic dental care.

Adult patients with various disabilities constitute a very serious medical problem in both general and specialist medical care, including dentistry. Many difficulties are caused by the specificity of the general diseases. Mostly, these patients are absorbingly “difficult”, time-consuming, and require patience, therefore dentists are reluctant to treat them.

The knowledge of disabilities and specific diseases make it necessary to treat these people in special conditions and by specially trained medical personnel. Dental treatment under general anesthesia is the most recommended for this group of patients.

AIM

The aim of this study was to analyze the structure of a group of adult disabled patients treated dentally under general anesthesia.

MATERIAL AND METHODS

The study was conducted among 147 disabled people, 61 females and 86 males aged 18-56 (the average age 26.69) from the Lubelskie Voivodeship, qualified for dental treatment under general anesthesia.

The survey was based on interviews with the family members or social workers.

The questionnaire included the information concerning general diseases, age, gender, place of residence and the kind of care (family or social welfare institutions). Special attention was paid to the previous dental treatment performed in outpatient clinics or under general anesthesia. Responses were marked in check boxes. Laboratory tests were recommended before the dental treatment under general anesthesia. When possible, the X-ray examination was performed.

The examined people were divided into five groups according to the diagnosis of medical specialists: mentally handicapped, cerebral palsy, autism spectrum disorders, epilepsy and other diseases (cardiovascular disease, neuroblastoma, respiratory diseases, Hodgkin's disease, multiple sclerosis).

The analysis of the examined group according to gender, place of residence, age, diagnosed general diseases and the kind of care was performed. Previous dental procedures performed in outpatient clinics or during subsequent dental treatment under general anesthesia were also analyzed.

RESULTS

The results are presented on Figures 1-7.

Classification of patients according to gender, place of residence, age, diagnosed general diseases and the kind of care is shown on Figures 1-5.

The study involved a group of 147 people, including 58.50% males and 41.50% females (Figure 1).

Patients from a big city accounted for 40.14%, 23.13% of patients were from a small town, and 36.73% of the people came from the village (Figure 2).

The average age of the patients was 26.69 ± 6.41 years (ranged from 18 to 56). Patients aged 18 constituted 14.29%, those aged 19-20 accounted for 14.29%, 21-25 year-olds constituted 36.73%, whereas 17.69% patients were at the age 26-30 and 17.00% above 30 years (Figure 3).

The largest group of patients were people with mental disabilities (54.43%) while 22.45% had cerebral palsy, 6.80% were autistic, 9.52% suffered from epilepsy and 6.80% – with other diseases (diseases of the cardiovascular system, neuroblastoma, respiratory diseases, Hodgkin's disease, multiple sclerosis) (Figure 4).

Most people (87.76%) lived with their family, while 12.24% were the residents of social welfare institutions (Figure 5).

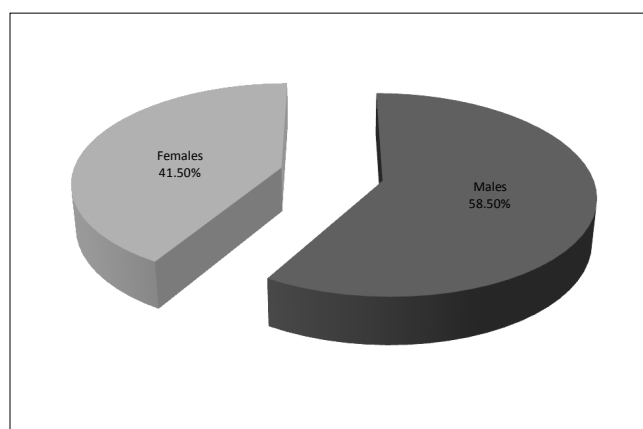


FIGURE 1. Percentage of examined patients according to gender.

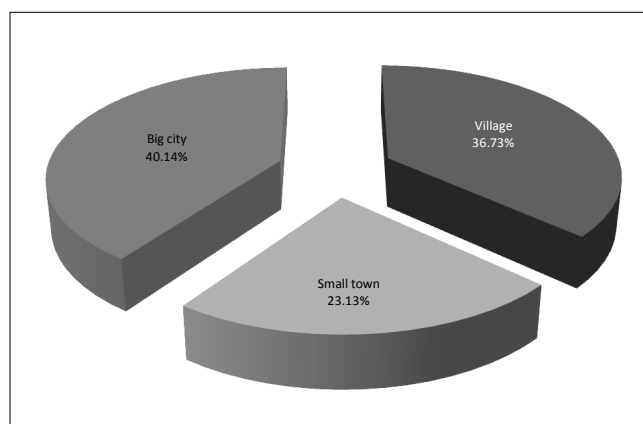


FIGURE 2. Percentage of examined patients according to place of residence.

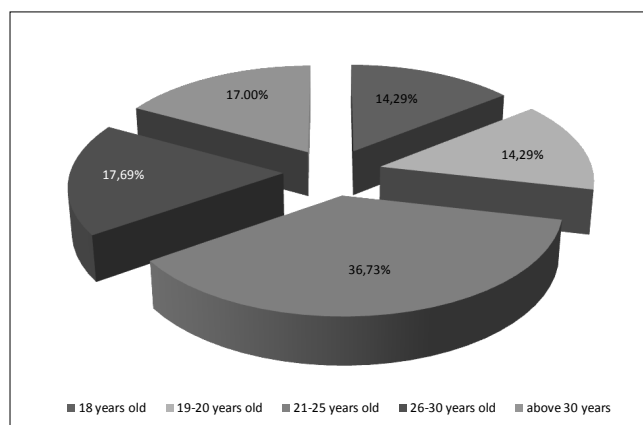


FIGURE 3. Percentage of examined patients according to age.

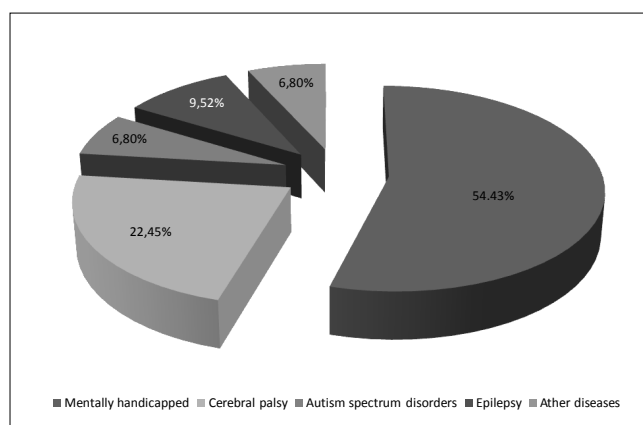


FIGURE 4. Percentage of examined patients according to diagnosed general diseases.

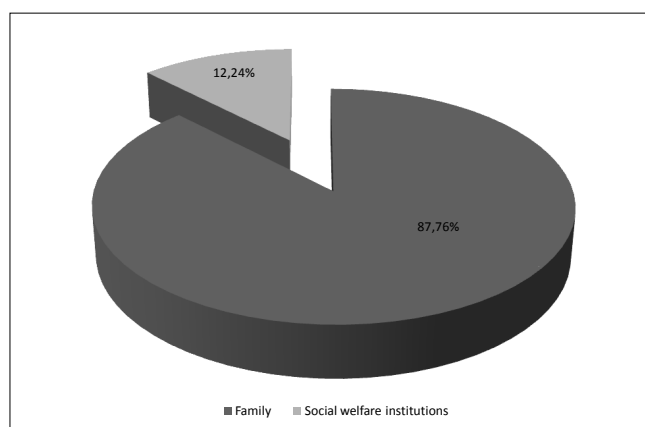


FIGURE 5. Percentage of examined patients according to the kind of care.

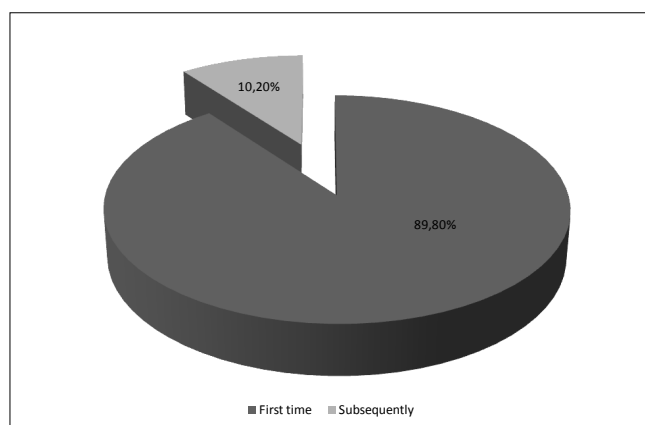


FIGURE 6. The percentage of patients with regard to the first and subsequent dental treatment under general anesthesia.

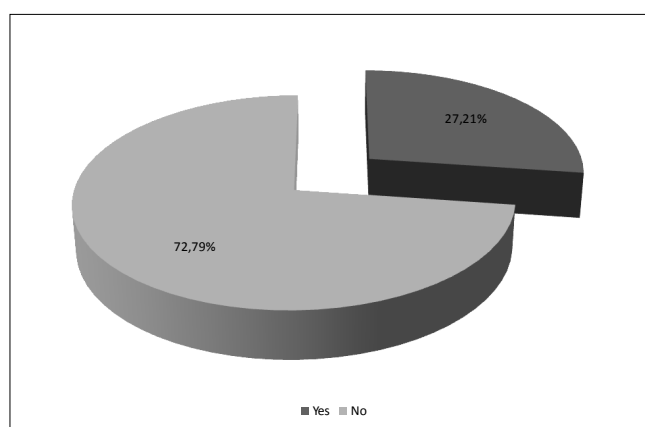


FIGURE 7. Percentage of patients who underwent outpatient treatment prior to dental treatment under general anesthesia.

The percentage of patients treated dentally for the first time and subsequently under general anesthesia is shown on Figure 6.

The analysis of the data reveals that for 89.80% of patients, it was their first dental treatment under general anesthesia, and for 10.20%, a subsequent one.

The percentage of patients who underwent dental outpatient procedures before dental treatment under general anesthesia is shown on Figure 7.

Studies have shown that early treatment in outpatient clinics was performed in only 27.21% of treated people, while 72.79% have never been treated in a dental surgery.

DISCUSSION

The population of disabled patients, including mental disabilities, is a serious social and health problem. Because of large therapeutic difficulties arising from mental and somatic disorders, these people are rarely dentally treated in outpatient clinics. Therefore, they are qualified for dental treatment under general anesthesia.

In the research, only 27.21% of patients were treated in outpatient clinics before any treatment under general anesthesia. The majority of research works presenting results of oral health in disabled patients, including mental disabilities, rely on studies that were conducted under outpatient conditions and also in situations where you could examine a large number of such people in institutions, special schools and kindergartens, in social welfare institutions, rehabilitation centers, and even Para-Olympic Games and sport events [5-8].

The patients were mostly recruited from psychiatric, neurological, oncology and internal diseases clinics.

They were qualified for dental treatment under general anesthesia with the following diagnosis: mental retardation – 54.43%; cerebral palsy – 22.45%; epilepsy – 9.52%; autism – 6.80% and others – 6.80% (cardio-vascular, neuroblastoma, respiratory diseases, Hodgkin's disease, multiple sclerosis). There are no clearly defined indications to perform dental procedures under general anesthesia. Similarly classified groups of patients according to general diseases were published by other authors [9-11].

The data show that dental treatment under general anesthesia is performed more often in the group of men (58.50%) than women (41.50%). Similar observations can be found in publications of Manowska et al. [4] and Wąsek et al. [12].

As a result of statistical analysis, it was found out that the mean age of patients was 26.69 ± 6.41 years (range 18-56 years). Few studies concern the adult population with disabilities, including intellectual disabilities in the specified age group [13-16].

In the present study, a large percentage (36.73%) of the patients who were treated under general anesthesia came from rural areas. Similar results were revealed in the studies performed in Lublin districts [10,13]. Studies conducted in the Lodz region show that adults with disabilities coming from rural areas were treated under general anesthesia at a much lower percentage – 14% [4].

The study shows that patients treated under general anesthesia were most often under the care of the family (87.76%) and only 12.24% of them were residents of social welfare institutions. According to Manowska et al., the data obtained from a careful analyses of the histories of adult disabled patients dentally treated under general anesthesia in Lodz show that 67.2% of the patients lived with family and 32.8% were residents of social welfare institutions [4].

In the present study, 89.80% of patients were treated dentally under general anesthesia for the first time whereas for only 10.20% it was a subsequent treatment. Similar results were published by Gereth et al. [17].

There is a scarce record concerning dental treatment under general anesthesia in adult patients with disabilities [4,9,18,19].

Michałowski [10] presents the results of research, which he also obtained during the treatment of disabled patients under general anesthesia. However, his study concerns the handicapped children and adolescents. In the available literature, most of the research relates to dental treatment under general anesthesia among handicapped children and adolescents [17,20-24].

The authors of numerous studies emphasize that dental treatment under general anesthesia is recommended most for disabled patients [9,17,19,20,24-27].

CONCLUSIONS

1. Mentally handicapped people were the largest group of patients treated dentally under general anesthesia.
2. Patients living in the urban areas and under the care of families were more often treated dentally under general anesthesia.
3. Because of the lack of cooperation between disabled patients and the dentist, the complete dental treatment under general anesthesia is the most effective therapy.
4. Adult disabled patients require special dental care.

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