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# The Impact of Differential Treatment on The Quality of Life of Patients with Combined Maxillofacial Trauma

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**Abstract:** This article presents the scientific aspects of maxillofacial surgery worldwide, including aspects of concomitant traumatic brain injury. It also discusses modern surgical methods for the treatment of concomitant maxillofacial injury. A differentiated approach to the treatment of concomitant maxillofacial injury is explored. Quality of life and pain are assessed using questionnaires. The effectiveness of surgical treatment and its impact on patients' quality of life are determined.

**Keywords:** Developmental history, algorithm, questionnaires, scales, combined maxillofacial and craniocerebral trauma, differentiated approach.

**Introduction:** Maxillofacial injuries are often accompanied by damage to the visual organs, brain, and paranasal sinuses. They can also be associated with damage to vital internal organs in the thoracic and abdominal cavities. Therefore, victims in this group are generally classified as severely injured. Therefore, the diagnosis and treatment of maxillofacial injuries are relevant in emergency medicine and among the most pressing issues in modern maxillofacial surgery [1,6,10,14].

For maxillofacial bone fractures, diagnosis begins with radiography – a traditional, routine, and still the primary diagnostic method [1,5,6,10,13]. This allows for the detection of fractures and deformations of the facial skeleton, abnormal positioning of fragments, as well as foreign bodies that may be localized in the paranasal sinuses and orbits [1,5,6].

Traumatic brain injury is one of the most pressing problems in modern medicine. Traumatic injuries to the skull and brain account for 30–40% of all injuries and are the leading cause of mortality and disability in working-age patients [3, 8, 9].

Functional impairments resulting from maxillofacial injuries are significant. This is due to the fact that the maxillofacial region contains vital organs and is the origin of the digestive and respiratory systems [1, 2]. Numerous studies have been conducted to investigate treatment methods for mandibular fractures. The main treatment principles are restoration of the anatomical shape of the bones, restoration of muscle function, and ensuring proper dental alignment [1, 5, 9].

However, due to the severe condition of the injured, conducting a full examination is often difficult. Furthermore, radiographic examinations provide extremely limited diagnostic information regarding the condition of the soft tissues of the maxillofacial region, as well as cartilaginous and connective tissue structures [1, 5, 6, 9].

According to current knowledge, a multislice computed tomography scan is required in 100% of cases, and in some cases, ultrasound and magnetic resonance imaging are also required [1,10].

Just one episode of hypotension in severe TBI doubles the risk of death, while two or more such episodes increase the risk eightfold [3,6]. Furthermore, the total duration of hypotensive episodes is a reliable predictor of mortality after traumatic brain injury. Therefore, aggressive and complete resuscitation, beginning in the

prehospital stage, is a priority for all victims of severe traumatic brain injury [3,6,9].

Today, patient quality of life is an important criterion for evaluating treatment effectiveness in clinical trials. Quality of life is characterized by changes in a patient's physical, emotional, and social well-being as a result of illness or treatment [7].

**The goal** is to improve the treatment outcomes for patients with combined maxillofacial trauma by using modern methods of comprehensive diagnostics and differentiated treatment tactics and assessing the quality of life.

**METHODS**

We analyzed data from 234 patients with combined maxillofacial injuries treated in the Maxillofacial Surgery Department of the Tashkent Medical Academy of the Ministry of Health of the Republic of Uzbekistan between 2019 and 2024.

Our differentiated approach to treatment tactics, conservative and surgical treatment, was based on the clinical presentation, objective instrumental examination findings, the severity of neurological signs, and assessment of patient consciousness using the Glasgow Coma Scale and other methods.

To assess quality of life, we used the Euro Qol-5D Quality of Life Questionnaire and the Visual Analogue Scale (VAS) to determine pain intensity, both of which had undergone a standard validation procedure. After diagnosis, all patients underwent surgery, including colostomy, various anastomoses, and other reconstructive procedures.

**RESULTS AND DISCUSSION**

All 234 patients with combined maxillofacial trauma were divided into two groups based on the severity of the injury. The first group included 104 (44.4%) patients with moderate-severity injuries who received conservative treatment of the lower maxillofacial region and moderate-grade brain contusions. The second group included 130 (55.5%) patients with severe injuries and severe brain contusions who primarily underwent surgical treatment of the lower and middle maxillofacial region.

In our study, all 234 patients were classified by gender and age groups according to the World Health Organization classification.

In our study, we examined the impact of a differentiated approach to the outcomes of conservative and surgical treatment based on the clinical presentation, objective instrumental examination findings, and patient age and gender considerations.

It should be noted that patients often sustained injuries at home due to falls from low heights: in the bathroom, from a chair, sofa, bed, cot, windowsill, from stairs, or while riding a bicycle. In the first group of patients with combined maxillofacial trauma, the overwhelming majority of cases with domestic injuries (60.7%) were the primary cause of injury. Falls from standing height also predominated among them (61.1%), while criminal injuries were recorded in 12.4% and road traffic accidents in 15.4%.

The most common cause of combined maxillofacial trauma was domestic trauma – 142 (60.7%); road traffic accidents (RTA) – 36 (15.4%); criminal injuries were recorded in 29 (12.4%); industrial injuries accounted for 14 (6.0%). Thirteen patients (5.5%) were admitted with an unknown cause.

According to our data, the largest number had domestic injuries, accounting for more than half of all patients (60.7% and 61.1%, respectively). Road traffic accidents were recorded in 15.4%, criminal injuries in 12.4%, and unknown causes of injury accounted for 5.5% of cases.

Of the 234 patients, the vast majority were conscious and moderately obtunded, accounting for 168 (71.8%). The remaining fifth (63 (26.9%) were in severe condition, ranging from profound obtundation to varying levels of coma. In cases of domestic injuries, the proportion of patients in extremely severe condition increased to 3 (1.3%).

According to our study data, a significant proportion of patients with combined maxillofacial injuries were working-age men (184, or 78.6%), which is a pressing issue from both social and economic perspectives.

Our observations revealed that the same patient experienced a combination of two or more somatic diseases, particularly cardiovascular diseases. These patients received additional treatment after examination by the appropriate specialist.

In our study of all 234 patients, a somatic assessment revealed that 94 (40.2%) of the 234 patients had

somatic pathology, manifested as arterial hypertension in 30 (31.9%) cases, neurological pathology in 31 (32.9%) cases, and ischemic heart disease in 7 (7.4%) cases. Seven (7.4%) cases were gastroenterology, 7 (7.4%) ENT organs, 7 (7.4%) endocrinology, 3 (3.2%) oncology, 2 (2.1%) ophthalmology patients with liver pathology, and 1 (1.1%) with renal failure.

During our examination, we noted concomitant somatic diseases in patients, which undoubtedly influenced the course of combined maxillofacial trauma. Thus, of the 234 patients, 94 (40.2%) had concomitant somatic pathology, either isolated or in combination.

The study of the clinical course of patients with combined maxillofacial trauma is of significant interest in terms of diagnosis, determination of differentiated tactics, and treatment results and outcomes.

Depending on the clinical phase of the course, patients with combined maxillofacial trauma were divided as follows: 128 (54.7%) patients were in the clinical compensation stage; 64 (27.3%) were in the clinical subcompensation stage; 33 (14.1%) were in the moderate clinical decompensation stage; 9 (3.9%) were in the clinical decompensation stage.

We assessed the severity of patients with combined maxillofacial trauma upon admission to our hospital's emergency department using the Glasgow Coma Scale and other scales and questionnaires that determine the degree of injury for a differentiated approach to treatment.

In our observations, of 234 patients with combined maxillofacial trauma admitted to hospital, 117 (50%) were in moderate condition upon admission, slightly more than a third (85 (36.3%)) were in severe condition, and only 29 (12.4%) were in satisfactory condition; 3 (1.3%) cases were admitted in extremely severe condition (see Fig. 1).

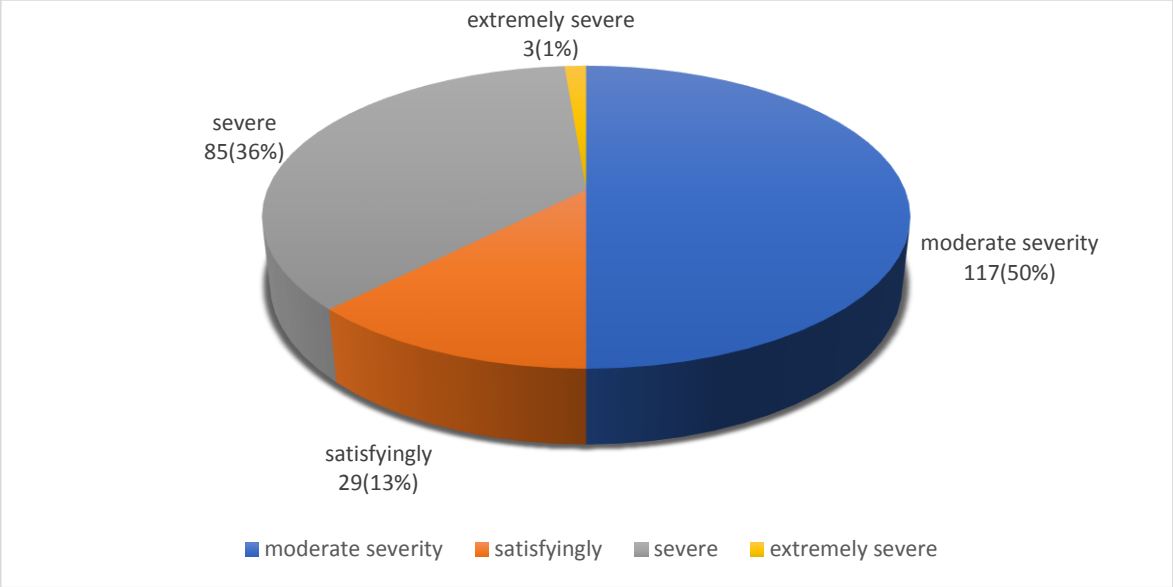


**Fig. 1. Condition of patients with combined maxillofacial trauma upon admission n=234**

In all 234 patient examinations, we assessed each case individually and made differentiated decisions when determining further treatment.

In our studies, critical condition was observed in 3 patients (1.3%) with severe brain contusion, basal skull fracture with basal scull fracture, and multiple midface injuries.

Severe condition was observed in 85 patients (36.3%) with multiple midface injuries and severe brain contusion.

A total of 117 patients (50%) with moderate brain contusions and lower facial fractures were assessed as having moderate severity. In our observations, 29 patients (12.4%) were in satisfactory condition.

Patients with combined maxillofacial trauma underwent a general clinical and neurological examination upon admission to the hospital, including an assessment of the level of impaired consciousness, the severity of general cerebral, focal, dislocation, brainstem, and meningeal symptoms. All 234 patients studied underwent a clinical and neurological examination upon admission and over time, assessing the level of impaired consciousness using the GCS, as

well as the severity or presence of general cerebral, focal, brainstem, and meningeal symptoms.

In our sample of 234 patients with combined maxillofacial trauma, 135 patients retained clear consciousness, accounting for 57.7% of cases. Thirty-three (14.1%) patients were moderately obtunded, and 24 (10.3%) were profoundly obtunded. The distribution of patients in severe condition was as follows: stupor - 16 (6.8%), coma I - 14 (6.0%), and coma II - 9 (3.8%). The remaining three (1.3%) patients were in grade III coma (see Table 1).

**Table 1**

**Assessment of the level of impaired consciousness in patients with combined maxillofacial trauma (n=234)**

| Level of consciousness | GCS, points | abs. | % |
|---|---|---|---|
| Clear | 14-15 | 135 | 57,7 |
| Moderate Stun | 13 | 33 | 14,1 |
| Deep Stun | 11-12 | 24 | 10,3 |
| Stupor | 9-10 | 16 | 6,8 |
| Coma I | 7-8 | 14 | 6,0 |
| Coma II | 5-6 | 9 | 3,8 |
| Coma III | 3-4 | 3 | 1,3 |
| Total | | 234 | 100 |

Our analysis revealed key patterns in the clinical course of combined maxillofacial injuries. Specifically, a characteristic change in consciousness, ranging from clear consciousness to coma, was noted.

All 234 patients with combined maxillofacial injuries underwent instrumental examinations upon admission to the hospital based on existing standard treatment methods and our developed algorithm and scale for maxillofacial fractures.

In our study of 234 patients, no skull fractures were recorded in 85 (36.3%), while craniography revealed skull fractures in 149 (63.7%) cases.

Of these, 149 (100%) patients had skull vault fractures (120) (80.5%), skull vault and base fractures (26) (17.5%), and a skull base fracture (3) (2.0%).

In our study of 234 patients, the absence of skull fractures was recorded in 85 (36.3%) cases, while the presence of skull fractures during craniography was observed in 149 (63.7%) cases. Moreover, there were 120 (80.5%) fractures of the vault of the skull, 26 (17.5%) fractures of the vault and base of the skull, and 3 (2.0%) fractures of the base of the skull, for a total of 149 (100%) patients. This breakdown by group would look as follows (see Table 2).

**Table 2**

**Number of patients with skull vault and base fractures, n=234**

| Fracture Locations | Total n=234, % | Group 1 n=104, % | Group 2 n=130, % |
|---|---|---|---|
| Fracture of the arch | 120 (51,3%) | 19 (8,1%) | 101 (43,2%) |
| Fracture of the arch and base | 26 (11,1%) | 0 | 26 (11,1%) |

| | | | |
|---|---|---|---|
| Basal skull fracture | 3 (2,0%) | 0 | 3 (2,0%) |
| Total number of patients | 149 | 19 | 130 |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | |

In a study of 149 patients, fractures of the vault were found in 120 (68.6%) cases; fractures of the vault and base of the skull could be combined with each other in our observations; there were 52 (29.7%) cases of them, a fracture of the base of the skull in 3 (1.7%) cases, a total of 175 (100%) events in the context of groups will look as follows (see Table 3).

**Table 3**

**Number of patients with fractures of the vault and base of the skull, n=234**

| Fracture Locations | Всего n=234, % | 1 группа n=104, % | 2 группа n=130, % |
|---|---|---|---|
| Fracture of the arch | 120 (51,3%) | 19 (8,1%) | 101 (43,2%) |
| Fracture of the arch and base | 52 (22,2%) | 0 | 52 (22,2%) |
| Basal skull fracture | 3 (2,0%) | 0 | 3 (2,0%) |
| Total number of patients | 175 | 19 | 156 |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | |

All 234 patients with combined maxillofacial trauma were divided into two groups based on the severity of the injury.

Our 234 patients did not undergo neurosurgical procedures, as they were screened based on the severity of their injuries at the diagnostic stage, using a developed algorithm and a scale for maxillofacial fractures.

According to our data, the time from injury to hospitalization for patients with combined maxillofacial trauma ranged from a few minutes to several days.

The treatment distribution of all 234 patients was as follows: 104 (44.4%) underwent conservative treatment, while 130 (55.5%) underwent surgical treatment. Of the 130 patients in the second group, 104 (80%) underwent surgical treatment. According to the dislocation of fractures of the maxillofacial region and treatment methods, patients were distributed as follows: representatives of the first group received conservative treatment 104 (44.4%), of which 74 (31.6%) had fractures of the lower jaw, 21 (9.0%) of the zygomatic bone, 5 (2.1%) of the upper jaw and 4 (1.7%) of the nasal bone.

The second group included 130 (55.5%) of which 104 (80%) patients were operated on, with fractures of the lower jaw in 96 (41.0%) cases, zygomatic bone in 6 (2.6%), upper jaw in 1 (0.4%) and pearl nose in 1 (0.4%) cases, treated conservatively with fractures of the lower jaw in 16 (6.8%) cases, zygomatic bone in 8 (3.4%), upper jaw in 1 (0.4%) and pearl nose in 1 (0.4%) cases of observations (see Table 4).

**Table 4**

**Indicators of treatment types for patients with maxillofacial fractures, n=234**

| Number of patients, types of treatment | Upper jaw | Lower jaw | Zygomatic bone | Nasal bones |
|---|---|---|---|---|
| Group 1 | 5 | 74 | 21 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| n=104 (44.4%) | All patients were treated conservatively | 2,1% | 31,6% | 9,0% | 1,7% |
| Group 2 n=130 (55,5%) | Surgical treatment 104 (80%) | 1 0,4% | 96 41,0% | 6 2,6% | 1 0,4% |
| | Conservative treatment 26 (20%) | 1 0,4% | 16 6,8% | 8 3,4% | 1 0,4% |
| Total 234 | | 7 3,0% | 186 79,5% | 35 14,9% | 6 2,6% |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | | | |

If we examine the conducted analysis of the obtained research data in the context of groups with fractures of the maxillofacial region of 234 patients, the number of cases will look as follows: a total of 456 (100%) cases: 362 (79.4%) mandibular fractures, 66 (14.5%) zygomatic bone fractures, 16 (3.5%) maxillary fractures, and 12 (2.6%) nasal bone fractures.

In our studies, the indicators of the first group were 54 (14.9%) fractures in the chin region, 50 (13.8%) in the angle region of the mandible, 34 (9.4%) in the condylar process region, 13 (3.6%) in the body of the mandible, and 6 (1.7%) in the ramus region of the mandible.

According to our data, the second group had 71 (19.6%) chin fractures, 65 (17.9%) posterior angle fractures, 44 (12.1%) condylar fractures, 18 (5.0%) posterior body fractures, and 7 (1.9%) ramus fractures.

Our analysis of the obtained data from the study of 234 patients with maxillofacial fractures revealed the following: 186 (79.5%) mandible fractures, 35 (15.0%) zygomatic fractures, 7 (3.0%) maxillary fractures, and 6 (2.5%) nasal bone fractures.

In the first group, 157 (34.4%) mandible fractures, 32 (7.0%) zygomatic fractures, 7 (1.5%) maxillary fractures, and 9 (2.0%) nasal bone fractures.

In the second group, there were 205 mandibular fractures (44.9%), 34 zygomatic fractures (7.5%), 9 maxillary fractures (2.0%), and 7 nasal bone fractures (1.5%).

Based on the analysis of the obtained study data for the groups with mandibular fractures in 234 patients, the number of cases will look as follows: a total of 362 (100%) cases, of which 125 (34.5%) were fractures in the chin area, 115 (31.8%) in the angle area of the mandible, 78 (21.5%) in the condylar process area, 31 (8.6%) in the body of the mandible, and 13 (3.6%) in the ramus area of the mandible.

According to the results of our study, a combination of two or more fractures was observed in the same patient, this was especially characteristic of the mandible.

According to our study, it was established that there were 94 (20.6%) fractures in the middle section and 362 (79.4%) fractures in the lower section of the maxillofacial region, with a total of 456 cases of observation. The results obtained are consistent with the literature data of world researchers and are reliable (see Table 5).

**Table 5**

**Indicators of the incidence of maxillofacial fractures in patients by group, n=456**

| Fracture Locations | Total n=234, % | Group 1 n=104, % | Group 2 n=130, % |
|---|---|---|---|
| Middle part fractures are only | 94 (100%) | 41 (43,6%) | 53 (56,4%) |
| Fracture of teeth, alveolar process of the maxilla | 6 (6,4%) | 1 (1,1%) | 5 (5,3%) |
| Upper temporomandibular fracture (Le Fort III) | 6 (6,4%) | 2 (2,1%) | 4 (4,2%) |

| | | | |
|---|---|---|---|
| Fracture of the maxilla, intermediate type (Le Fort II) | 8 (8,5%) | 4 (4,2%) | 4 (4,2%) |
| Inferior type fracture of the maxilla (Le Fort I) | 6 (6,4%) | 3 (3,2%) | 3 (3,2%) |
| Naso-orbito-ethmoidal complex (NOE) fracture | 12 (12,7%) | 5 (5,3%) | 7 (7,4%) |
| Zygomaticomaxillary complex (ZMC) fracture | 56 (59,6%) | 26 (27,7%) | 30 (31,9%) |
| Fracture of the lower part of the fractures in total | 362 (100%) | 157 (43,4%) | 205 (56,6%) |
| Fracture of the chin area | 124 (34,2%) | 54 (14,9%) | 70 (19,3%) |
| Fracture of the angle of the mandible | 114 (31,5%) | 50 (13,8%) | 64 (17,7%) |
| Fracture of the condylar process | 77 (21,3%) | 34 (9,4%) | 43 (11,9%) |
| Fracture of the body/branch of the mandible | 4 (1,1%) | 1 (0,3%) | 3 (0,8%) |
| Fracture of the mandibular branch | 31 (8,6%) | 13 (3,6%) | 18 (5,0%) |
| Fracture of the nasal bones | 12 (3,3%) | 5 (1,4%) | 7 (1,9%) |
| Total number of fractures and points | 456 (100%) | 198 (43,4%) | 258 (56,6%) |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | |

Thus, based on the analysis of the data obtained in our study, mandibular fractures were most frequently observed in the submental region (125 cases, 34.5%), the angle region (115 cases, 31.8%), and the condylar process (78 cases, 21.5%), which is consistent with data from international researchers.

In our study of 234 patients, clinical and radiographic examination revealed that 456 fractures occurred in the middle and lower maxillofacial region. This is due to the anatomical location of structures during injuries of various origins and their vulnerability.

The quality of life of 234 patients was assessed using the Euro Qol-5D Quality of Life Questionnaire.

We believe that treatment should primarily focus on pain relief, which significantly impacts patients' quality of life. QOL assessments were conducted in all groups before and after treatment (Table 6).

**Table 6**

**Euro Qul-5D questionnaire scores before treatment (n=234)**

| Groups | Number of patients | M (Mobility) | S (Self-service) | DA (Daily Activities) | P/D (Pain/Discomfort) | A/D (Anxiety/Depression) | EQ- score of health status |
|---|---|---|---|---|---|---|---|
| 1 | 104 | 1 | 1 | 0,39658 | 0,123 | 0,08611 | 0,66271 |
| 2 | 130 | 1 | 1 | 0,3404 | 0,123 | 0,08465 | 0,6645 |
| Total: | 234 | 1 | 1 | 0,36138 | 0,123 | 0,08601 | 0,661705 |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | | | | | |

Our analysis of the quality-of-life study results for 234 patients showed that the data obtained in the two groups differed.

Quality of life significantly deteriorated and was slowly restored in patients with comorbid somatic pathology.

According to our data, the most significant deterioration in the Euro Qol-5D questionnaire parameters, such as pain/discomfort and anxiety/depression, occurred in all study groups.

The quality-of-life study results for patients in the first group were stable, as their injuries were moderate in severity.

The results for the second group of patients were labile, as their injuries and progression were severe, and pain was a prominent factor. This significantly worsened their quality of life, aggravating their overall condition and somatic status (see Table 7).

**Table 7**

**Euro Qul-5D questionnaire scores after treatment (n=234)**

| Groups | Number of patients | M (Mobility) | S (Self-service) | DA (Daily Activities) | P/D (Pain/Discomfort) | A/D (Anxiety/Depression) | EQ- score of health status |
|---|---|---|---|---|---|---|---|
| 1 | 104 | 1 | 1 | 0,38922 | 0,4979 | 0,95208 | -0,57638 |
| 2 | 130 | 1 | 1 | 0,3259 | 0,5244 | 1,025 | -0,6124 |
| Total: | 234 | 1 | 1 | 0,354912 | 0,464848 | 0,975237 | -0,54345 |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | | | | | |

A study of 234 patients' quality of life revealed that the most significant impacts were on pain/discomfort and anxiety/depression. This was driven by emotional states, which, in a vicious cycle of mutual reinforcement, worsened the quality of life of patients with combined maxillofacial trauma.

Analysis of the study data from all 234 patients suggests that vigilance and monitoring of harmful factors, as well as the belief that these signals indicate disease progression, can transform even mild pain into unbearable pain.

In our research, we used a visual analog scale to determine pain intensity in the patients.

Based on our research, we believe that pain, as a strong irritant, primarily impacts the emotional state of patients, provoking a deterioration in their condition and quality of life (see Table 8).

**Table 8**

**VAS scores before treatment (n=234)**

| Groups | Number of patients | 1-no pain (0) | 2-weak pain (1-3) | 3-moderate pain (4-6) | 4 - very severe pain (7-9) | 5 - unbearable pain (10) |
|---|---|---|---|---|---|---|
| 1 | 104 | 0 | 20 | 7 | 0 | 0 |
| 2 | 130 | 0 | 22 | 33 | 1 | 1 |
| Total: | 234 | 0 | 42 | 40 | 1 | 1 |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | | | | |

Our studies using the VAS scale after treatment for various surgical procedures yielded the following results: after treatment, pain regressed to complete disappearance in all two groups. Mild pain persisted in only two patients in the first group and one patient in the second group, demonstrating the effectiveness of treatment methods with a differentiated approach. Postoperative pain parameters reported by patients are presented in the following table (Table 9).

**Table 9**

**VAS scores after treatment (n=234)**

| Groups | Number of patients | 1-no pain (0) | 2-weak pain (1-3) | 3-moderate pain (4-6) | 4 - very severe pain (7-9) | 5 - unbearable pain (10) |
|---|---|---|---|---|---|---|
| 1 | 104 | 100 | 2 | 0 | 0 | 0 |
| 2 | 130 | 131 | 1 | 0 | 0 | 0 |
| Total: | 234 | 231 | 3 | 0 | 0 | 0 |
| *Note: the differences between the indicators are statistically significant (P < 0.001)* | | | | | | |

Thus, based on the research, the following conclusions can be drawn: avoidance behavior is reinforced very quickly, since it leads to increased fear, limitation of physical activity and other physical and psychological consequences that contribute to disability and the spread of pain. In turn, all of the above factors contribute to a deterioration in the quality of life of patients.

**CONCLUSIONS**

1. According to the data obtained in our study, a significant proportion of patients with combined maxillofacial trauma were men of working age (184 (78.6%)), which is a pressing issue from both social and economic perspectives.

2. An examination of the somatic status revealed that among the 234 patients, 94 (40.2%) had somatic pathology, manifested as arterial hypertension (30 (31.9%)), neurological pathology (31 (32.9%)), and ischemic heart disease (7 (7.4%)). In 7 (7.4%) cases, gastroenterology, ENT organs (7 (7.4%)), endocrinology (7.4%), oncology (3 (3.2%)), ophthalmology (2 (2.1%) patients with liver pathology, and renal failure (1 (1.1%)).

3. Analysis of the obtained study data in the context of groups with maxillofacial fractures of 234 patients will look as follows: 456 cases (100%), mandible fractures, 362 (79.4%), zygomatic bone fractures (66 (14.5%), maxilla fractures (16 (3.5%)), and nasal bone fractures (12 (2.6%), which is very relevant.

4. Concomitant somatic pathology of the 234 patients studied had a strong impact on their quality of life, with pain/discomfort and anxiety/depression parameters suffering the most, which contributes to the emotional state of the patients. The visual analogue scale and its five parameters allow for a more detailed examination of the pain syndrome.

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