

Revista Brasileira de Odontologia Legal – RBOL

ISSN 2359-3466

<http://www.portalabol.com.br/rbol>



Forensic traumatology

ASSESSMENT OF PERSONAL INJURIES IN DENTISTRY AND DISCUSSION OF DPVAT INSURANCE – CASE REPORT.

Avaliação de danos pessoais em odontologia e discussão sobre seguro DPVAT – relato de caso.

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Information about the manuscript

Received: June 14, 2020

Accepted: November 15, 2020

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ABSTRACT

Dentists are due to evaluate, in cases of traffic accidents, the sequelae left based on Personal Injury Caused by Motor Vehicle Terrestrial Insurance – DPVAT. This case report discusses the DPVAT table invalidity provided by law 6,194/74 and the lack of prediction of, total or partial, personal injuries related to phonetic, masticatory and aesthetic function due to dental losses and bone fractures. A 30-year-old victim of a traffic accident, suffered several bone injuries in face, skull and dental elements, claiming for total insurance payment. It was verified a scar in the right frontal region and in the left malar region. He lost centrals and laterals incisors and canine on the right in maxilla, important mandible deviation in step in canine region on the left, root rot of the first lower molars, septum deviation due to face fractures, but he does not mention pain. In the evaluation of the percentage, according to DPVAT table, it took into account the losses of anterior teeth and mandible fracture, which caused a functional, aesthetic and phonetic sequel. Severe dental losses and fracture sequelae justify a partial payment of insurance, but DPVAT table does not consider the loss of phonetic, aesthetic and masticatory functions that should be better discussed to be included in the table.

KEYWORDS

Forensic dentistry; Traffic accidents; Tooth injuries.

INTRODUCTION

In the Brazilian insurance industry, there are two types of insurance: public insurance [Personal Injury Caused by Vehicles – DPVAT (government

administered)] and insurance offered by private companies. Since 1974, vehicle owners in Brazil have been required by law to have DPVAT insurance (Federal Law 6.194/74)¹. In the event of an accident, this

insurance covers death; permanent partial or total disability; as well as medical expenses for accident victims. The assessment of corporal damage in Civil law was developed in the middle of the last century, mainly during the Second World War with the increase transports through roads². From the earliest civilizations, the concern with the regulation of damage reparations caused by third parties and the ways to provide justice were already present².

Currently, to resolve compensation for damage, a system of tables with valuation of personal injury is used, whose primary purpose is to establish a mechanism of certainty in fixing the compensations that most closely approximates the dysfunction or disability that result from body injuries³. However, the tables do not have an absolute value. They refer to an indicative value of the percentages or functional deficit points that will only serve as a reference for the determination of compensation by the judge^{1,3}. DPVAT's compensation limits are relatively small (US\$ 3970 for death, up to US\$ 3970 for disability, and up to US\$ 795 for medical and hospital expenses, in 2014².

The quantification of bodily harm through bodily injury valuation tables is one of the essential elements within expert work, which mainly focuses on communicating to the judge the exact severity and permanence of the injury so the judge can make a fair decision founded by law in each case⁴. The classification of the table of personal injuries indicates the percentage and extent of insurance coverage according to the degree of disability⁵.

As previously mentioned, the Law 6194/74¹ created DPVAT Insurance, which

is a compulsory insurance against personal injury caused by motor vehicles, aiming at guaranteeing victims of accidents compensation in the event of death and permanent disability and the reimbursement of medical expenses. A major change in insurance occurred with Law 11945/09⁶, which introduced a table that "breaks down" the human body into several parts, establishing a series of percentages that must be observed for setting compensation due in case permanent disability, as well as guidelines regarding the use of this table and other guidelines^{7,8}. In the case of the assessment of injuries caused by traffic accidents, the insurance table does not quantify the dental losses⁹ nor the consequences and sequelae that may occur due to damage to the stomatognathic apparatus. Similarly, other risks are not covered by DPVAT, such as theft, natural disasters, and collisions. This has resulted in increased consumer demand for private insurance that offers protection around the total value of the vehicle, in addition to allowing for greater damages to third parties¹.

The method of valuation in corporal damage, in most European countries, the value of legal dentistry is the quantitative one, which consists in establishing the importance or intensity of this damage once described, equating it to one of the categories or adjectives referred to a scale of 7 degrees of increasing severity³.

Automobile accidents are among the most recurrent causes of oral and maxillofacial trauma¹⁰. In addition, associations between driver gender, risk behavior when driving motor vehicles and

the inclination to purchase auto insurance have been investigated from data obtained from epidemiological studies. A randomized survey of 566 middle-class adults revealed that women feel a greater need than men do to have auto insurance in the event of a possible road accident in rainy weather, and access to driver support services. Women also tend to have more respect for speed limits in various situations, such as during rush hour, on local roads and on highways. The results also showed that men feel safer than women do when driving in situations that are more precarious: at night, in unfamiliar areas, after drinking or when they are tired¹¹.

The objective of this case report is to discuss alternatives in the quantification and evaluation of damage for DPVAT insurance, since this type of insurance does not quantify sequels resulting from dental losses, moreover it brings poor information for facial damage and the available literature is scarce.

CASE REPORT

A forensic expert was required in December, 2016, by the judge for the examination and quantification of personal injuries of 30-year-old man who claimed insurance. According to the case file shall, suffered a motorcycle accident on 4 May 2008, resulting in several injuries on face, skull and teeth. According to hospital report, he was hospitalized in Critical Care Unit (CCU) for 10 days, with several facial fractures and dental loses, plus femur fracture.

During the forensic examination, the patient presented a scar in the right frontal

region, measuring 3 cm and one in the left malar region, measuring 1 cm. On the head there is a scar in the right parietal region measuring 7 cm and a scar in the left parietal region measuring 4 cm, resulting in no functional damage. During intraoral examination, it was observed loss central and lateral upper incisors (11, 12, 21 and 22) and right upper canine (13), significant jawbone deviation in step in the left lower canine region (33) - Figure 1.



Figure 1 – Partially edentulous patient (dental losses 11, 12, 13, 21, 22); deviation in step of mandible, in the region of tooth 33.

Rot roots of the lower molars (36 and 46). In the case file there is a service report at the time of the accident and a report of an Image Clinic, dated 5 May 2008, which states: “Fracture of the medial, lateral and floor of the orbits, fracture of all maxillary sinus walls, palate fracture. Fracture of the pterygoid processes of the sphenoid bone, fracture of the zygomatic bone on the left, fracture near the zygomatic junction and temporal bone on the right with apparent extension to articulation with the jaw, nasal bone fracture, nasal septum fracture, ethmoid bone fracture”. Due to fractures in the bones of the face, the patient presented deviation of nasal septum (Figure

2) and nasal obstruction to air passage; however, the patient did not report pain.



Figure 2 – Glabella to chin vertical line, showing deviation of nasal septum.

In the case reported here, the expert report presents post-traumatic sequelae in nasal bone, mandibular bone, and teeth losses, due to a traffic accident, with a time lapse consistent with the injuries; thus, there is a causal and temporal link between the accident and the results.

The lack of upper elements causes both functional and aesthetic losses. Nevertheless, the dental or intraoral sequels presented are not included in the SUSEP circular table, and, therefore, other tables were used to quantify the damage so that the report is an objective piece and fulfills its role.

Regarding tooth loss, the tables by Dueñas, in Beltran, presented a criterion for aesthetic, phonetic and masticatory valuation and Álvaro Doria, in Raimundo Rodrigues, apud Arbénz for aesthetic and phonetic damage.

The expert report concluded that permanent weakness in moderate degree of masticatory function (6%), aesthetic function (30%) and phonetic function (38%), in

addition, the expert assessed need for complex prosthetic rehabilitation with bone graft, implants and prostheses.

The sentence supported the findings of the expert report, limited to the dental area, and found that *the author has partial permanent disability, with sequelae of medium repercussion*. The judge of the case determined, in sentence, the indemnity percentage equals 50% of the value of total permanent disability approximately, US\$ 2.500,00, observing the framing of the anatomical or functional loss in accordance with art. 3, §1, II, of Law 6,194/74, thus being entitled to compensation for US\$ 1,300.00.

DISCUSSION

The Superintendence of Private Insurance (SUSEP) is an autarchy linked to the Ministry of Finance, responsible for the control and supervision of insurance, open private pension, capitalization, and reinsurance markets in Brazil. Relevant documents are SUSEP Circular 302/05, Section III, articles 11 and 12, which deals with accident disability coverage and Circular 29/91, which approved rules for Personal Accident Insurance in cases of death, total or partial disability¹². The documents provide tables for calculating indemnity in the event of permanent disability, but they dismiss the dental element and other parts of the face as part of a system, much less mention periodontal lesions, sensory functions such as taste, smell, swallowing disorders, breath and other essentials to life.

These and other tables, used by experts in Brazil, are intended to objectively

assess the damage by both expert and judge, leaving no room for subjectivity¹³. However, they are insufficient to contemplate all the variations and dimensions of the consequences of bodily harm, thus not personalizing the damage. There are other tables that, although not dealing with injuries resulting from traffic accidents, can be referenced in a report, such as the Portuguese: National Table for the Evaluation of Permanent Disabilities in Civil Law, which was jointly studied with the National Table of Disabilities due to Traffic Accidents. Work or Occupational Diseases, in 2007¹⁴, which in its Chapter XV deals with Stomatology and brings numerous injuries that cause partial disabilities. In addition, a French table¹⁵ presents and complements the information.

Moreover, it is important to notice that the Brazilian population is comprised almost equally of men (49%) and women (51%)¹⁶. In 2019, over 353 thousand indemnities were paid in the three types of coverage: death, permanent disability and reimbursement of assistance expenses medical and supplementary (DAMS). This number is 8% higher than in 2018. Of the total payments from DPVAT made last year, 67% were for traffic accidents involving motorcycles and whose victims were drivers in the age group of 18 and 34 who were left with some kind of permanent sequel. Of the total indemnities paid for death in accidents involving motorcycles, 88% were for male victims. For cases of victims with sequelae permanent, 79% of the indemnities for motorcycle accidents were also for male victims, while compensation for accidents

involving other vehicles, also paid for by men, accounted for 66%¹⁷.

Of the five regions of Brazil, from January to December 2019, the regions Southeast and Northeast concentrated the largest incidence of accidents with fatal victims (34% and 32%, respectively). In both fatal accidents predominated involving motorcycles, with 42% and 65%, respectively¹⁷.

These results while contributing to the theoretical development of road traffic and transport safety also have a particular relevance to the financial sector and the regulatory agency. The insurance industry may find these results particularly useful for designing future policies and setting insurance premium. The face and stomatognathic system are often subject to injuries during traffic accidents, due to their high exposure^{18,10}.

The national insurance market does not grant the right to indemnity for permanent disability loss and cosmetic damage, even in cases of proven reduction, total or partial, of functional impotence.

To carry out the expert report in cases where bodily harm caused by traffic accidents occurs, the expert needs to report and quantify the losses, using the personal injury valuation tables. Circular SUSEP 302/05, Section III, Articles 11 and 12, bring the rules for calculation of compensation in cases of Permanent Disability by Accident (IPA)¹². The use of the DPVAT Compulsory Insurance table is mandatory, however, it does not quantify dental losses or damage to the stomatognathic system, presenting only lesions of craniofacial organs and structures¹⁹.

In forensic odontology, the main point for the assessment of posttraumatic bodily injury is the establishment of the causal link, that is, the cause and effect relationship that must exist between the damage and the trauma that was caused²⁰. It is extremely important that a reference, protocols, and methodologies be established for the indemnities resulting from traffic accidents involving damage to the stomatognathic apparatus, since there are significant variations in the stipulation of these values²¹. There is a wide divergence between magistrates and law enforcement officials in the quantification of compensation in such cases. Although tables are not absolute truths, the dental expert uses them as a measurement tool, homogenizing the assessment, and should always look for other sources to support their results²².

The only description of the SUSEP table that relates to the injuries sustained in this case falls under the category of "injuries to the cranial facial structures and organs", which are indemnifiable only in the case of total damage - hypothesis that is not the case in point. Nonetheless, you cannot let a person who has major sequelae not be contemplated with partial compensation. Thus, the judge of the case partially decided the insured's claim and set the amount of 50% of the compensation. With this, the judge fully accepted the expert's consideration, including transcribing parts of the report in the sentence.

Permanent incapacity presupposes total or partial limitation of organ or function. Functional limitation is a milder condition than incapacity, where the person still has

the function, but it is limited and partial. Dental sequelae are unlikely to cause it, but need to be quantified for partial compensation¹⁹.

Although dental sequelae may be subject to prosthetic rehabilitation in order to satisfactorily restore functional, aesthetic and aesthetic functions, the expert needs to mention in his report the fact that the patient needs to replace the dental prosthesis throughout life, so that the judge must take this information into account when quantifies damage.

One criticism of the tables is that although they are interesting when used to standardize damage and its quantification and valuation, they do not individualizing case-by-case basis and it is possible that they will never cover every case of injury and sequelae that anyone may have. It is interesting to study the case and base the resolution of each problem on scientific literature, taking the tables only as reference and not as the only protagonists.

Therefore, it is of utmost importance that the expert support his report with not only one, but with several robust and serious tables and references, in order to clarify the case to the judge understand and apply his legal knowledge. Experts are the judge's eye about problems that he is not aware of or does not have the expertise, so they can help him to decide correctly.

CONCLUSIONS

Based on this case report, it is possible to conclude that further studies are needed to objectively assess the aesthetic and functional damage of the teeth to be standardized. In addition, reports for DPVAT

insurance purposes must have stomatognathic lesions. Finally, it is homogeneous language and concepts. essential to give more visibility and importance to the work of the specialist in forensic dentistry.

RESUMO

Cabe ao cirurgião-dentista avaliar, em casos de acidentes de trânsito, as sequelas deixadas por tal fato para fins de indenização pelo seguro de Danos Pessoais Causados por Veículos Automotores em Vias Terrestres – DPVAT. Este relato de caso propõe discutir sobre a tabela de invalidez que traz a lei 6.194/74 e a falta de previsão de danos corporais envolvendo perda parcial ou total de função fonética, mastigatória e estética do aparelho estomatognático. Periciado de 30 anos, vítima de acidente de trânsito, sofrendo diversas lesões em ossos da face, crânio e elementos dentários, pleiteando pagamento total do seguro DPVAT. Verificou-se cicatriz em região frontal direita e em região malar esquerda. Indivíduo apresentava perda de todos os incisivos centrais e laterais superiores e canino superior direito, desvio importante em grau da mandíbula em região do canino inferior esquerdo, restos radiculares dos primeiros molares inferiores, desvio de septo devido às fraturas de face, porém não referia dor. Na avaliação da porcentagem da perda anatômica segundo a tabela de danos corporais do DPVAT, levou-se em conta a perda dos dentes anteriores e a fratura de mandíbula, que causaram sequela funcional, estética e fonética e necessidade de reabilitação protética complexa. Em conclusão, as perdas dentais severas e sequelas de fraturas justificaram o pagamento parcial do seguro, mas a tabela não considerou a perda de funções fonética, estética e mastigatória, devendo ser mais bem discutida.

KEYWORDS

Odontologia legal; Acidentes de trânsito; Traumatismos dentários.

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