

# Iatrogenic cancer pain and its prevention\*

## *Dor iatrogênica em oncologia e sua prevenção\**

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### SUMMARY

**BACKGROUND AND OBJECTIVES:** Cancer pain is a very important subject in Portugal since cancer leads to morbidity and mortality and its incidence is increasing in the last decades as a consequence of the progressive life expectation increase. Due to the unawareness of iatrogenic pain prevalence in hospitals, associated to its depreciation, this study aimed at contributing to a new awareness and action of health professionals and at emphasizing their qualification, about ways to prevent iatrogenic pain, being a fundamental tool to improve communication with patients and to minimize hospital routine.

**CONTENTS:** There has been progress in cancer patients' pain evaluation and relief and several studies address the iatrogenic effects of chemotherapy and radiotherapy. However, not all pains are attributable to the disease. Some are related to care and invasive procedures performed by health professionals.

**CONCLUSION:** It is essential to think about the importance of care as fundamental part of patients and not only treat and cure the disease, because health mechanization may minimize communication and worsen suffering.

**Keywords:** Iatrogenic pain, Oncology, Pain, Quality of life.

### RESUMO

**JUSTIFICATIVA E OBJETIVOS:** A dor oncológica

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é assunto de extrema importância em Portugal, uma vez que a doença oncológica é causa de morbilidade e morte e a sua incidência tem vindo a aumentar nas últimas décadas como consequência do progressivo aumento da esperança de vida. Devido ao desconhecimento da prevalência da dor iatrogênica, nos hospitais, associado à sua desvalorização, o objetivo deste estudo foi contribuir para uma nova consciência e agir dos profissionais de saúde e dar ênfase à formação, sobre formas de preveni-la, sendo esta uma ferramenta fundamental para melhorar a comunicação com o paciente e minimizar a rotina hospitalar.

**CONTEÚDO:** Foram realizados numerosos progressos com o objetivo de avaliar e aliviar a dor dos pacientes oncológicos e vários estudos refletem sobre os efeitos iatrogênicos dos tratamentos de quimioterapia e radioterapia. No entanto, nem todas as dores são atribuíveis à doença. Algumas relacionam-se com os cuidados e procedimentos invasivos, realizados pelos profissionais.

**CONCLUSÃO:** É essencial refletir sobre a importância do cuidar como parte fundamental do paciente e não apenas tratar e curar a doença, pois a mecanização da saúde pode minimizar a comunicação e agravar o sofrimento.

**Descritores:** Dor, Iatrogenia, Qualidade de vida, Oncologia.

### INTRODUCTION

Iatrogenic pain is an undervalued concept, because more relevance is given to the treatment of the disease itself. Professionals' interventions which may bring pain to patients and decrease their quality of life is seldom taken into consideration.

This study aimed at understanding a type of pain depreciated by health professionals and to which patients may become resigned to be cured, as well as knowing very simple ways to minimize it.

### IATROGENIC CANCER PAIN

The word "iatrogenic" comes from the Latin word

“iatro”, which means physician, and “genesis”, which means origin. Iatrogenic pain is that caused by health care providers, that is, corresponds to pain caused by care, by therapeutic, diagnostic and treatment gestures, being frequently associated to the notion of disease or complication<sup>1</sup>. Its prevention is not easy, however possible.

### Types of iatrogenic pain

As mentioned, iatrogenic pain may have different origins<sup>1</sup>.

### Care-induced pain

Pain induced by basic care, such patients mobilization, transfers, body and dental hygiene care, among others. Pain intensity varies according to their autonomy and fundamental needs.

A major cause of iatrogenic pain is related to patients' transportation and mobilization<sup>2,3</sup>. Several surveys carried out by the Committee for the Fight Against Pain (CLUD), in France, have shown that 35% of patients respond positively to the question: “Have you felt pain in the last 24 hours?”, being that such pain is, in the vast majority of cases, caused by nursing acts, and postoperative pain is referred by more than half the patients<sup>4,5</sup>.

### Pain caused by technical gestures

Pain caused by different diagnosis or treatment techniques, such as blood collection, venous, arterial or lumbar punctures, venous, muscle or subcutaneous drug administration, placement of nasogastric probe, vesical probe, dressing changes, among others<sup>6</sup>.

### Puncture pain

The skin has more nociceptors innervation density – in average 200 free terminations per cm<sup>1</sup> – being mostly polymodal type C fibers<sup>7</sup>.

This pain is referred to as not different from other types of acute pain. Examples are procedures needing the penetration of the skin and other tissues by needles or other tools, aiming at obtaining samples or making easier the administration of drugs<sup>8</sup>.

Intravascular catheterization is one of the most common hospital procedures, thus exposing patients to several complications, such as phlebitis, local and blood stream infections<sup>8</sup>, and is related to morbidity, hospital admission and increased costs<sup>9</sup>.

One of the most effective ways to treat cancer is chemotherapy, which implies the use of cytotoxic drugs, as well as the availability of an adequate venous access. In some

patients, peripheral catheterization is extremely difficult, being a factor for chemotherapy physical and psychological stress leading to the use of other techniques, such as central venous catheterization<sup>10-12</sup>.

### Pain caused by treatment and diagnostic procedures

Many are the secondary effects of cancer-oriented therapies. One may observe mucositis and xerostomy, paresthesias, among others<sup>13</sup>. A study carried out with children and young adults has shown that cancer-related pain decreased along the treatment, but was replaced by treatment-related pain<sup>14</sup>.

Many diagnostic procedures are frequently performed in cancer patients, firstly to detect the disease and then to evaluate its progression and therapeutic response. Several of these procedures are painful, such as biopsies which may complicate into hemorrhage, abscesses or fistulas<sup>13</sup>.

## IAGROGENC PAIN PREVENTION

There are several means accessible to those providing care and which help to prevent and decrease pain (Graph 1). All details are important and constitute a way to fight against pain caused by care. There should be a care relationship where attention and humanism to treat the other may attenuate painful symptoms<sup>15</sup>.

Chart 1 – Measures to relieve iatrogenic pain

Pay attention to details
<ul style="list-style-type: none"> <li>• Inform patients about the procedure.</li> <li>• Prescribe anxiolytic and analgesic drugs before care</li> <li>• Organize and plan care</li> <li>• Choose the adequate material</li> <li>• Have technical competences to perform it</li> <li>• Use non-invasive techniques, such as touch, massage, distraction</li> <li>• Evaluate pain before, during and after procedures</li> <li>• Pay attention to the environment</li> <li>• Observe patients during the procedure (non-verbal communication / facial expressions)</li> <li>• Meet basic human needs before care</li> <li>• Listen to patients about their previous experiences</li> <li>• When patients are unable to talk, one should combine communication with gestures.</li> </ul>
Challenge Service routines

Information may have a placebo effect in relieving pain and may decrease stress improving the confidence climate between patients and health professionals. Communication should be some time before the procedure

for the patient to digest this information, but not a long time before, so that patients do not become very anxious, or very close to the time, because patients may feel betrayed and caught in surprise. Language, site and amount of information may also be taken into consideration<sup>15,17</sup>. Other aspects are paramount to prevent pain, such as regrouping treatments, their organization and planning and the choice of adequate material. It is necessary to test materials and choose the less traumatizing<sup>15-17</sup>.

In a study to evaluate cancer patients' iatrogenic pain, it was observed that health professionals stated that they inform them, as opposed to what patients refer. Similarly, it was observed that, with regard to perceived feelings by physicians and nurses about pain related to procedures repetition, concern is the feeling most frequently referred by patients, and indifference or refusal the less frequent ones. Resignation is the major justification of patients to accept pain associated to invasive procedures, followed by the advantages of central catheters. This compliance with treatments should bring more responsibility to health professionals<sup>18</sup>.

The prescription of analgesic and anxiolytic drugs before care, exams or treatments to be provided is fundamental and it is necessary to take into consideration the action time of such drugs. Studies have shown that the application of a topic anesthetic agent minutes before puncture decreases pain as well as resulting vagal effects<sup>19</sup>.

Pain may be evaluated before, during and after procedure through the numeric or visual analog scale.

Similarly, it is important to develop technical competences, since the lack of skills may cause pain. It is important to accept failure, give up and to ask patients' cooperation<sup>15</sup>.

The above-mentioned study has observed that both patients and nurses refer that pricking repetition influences pain associated to invasive procedures. However, for patients this is the second factor, being the most important the person performing the procedures (Graph 1).

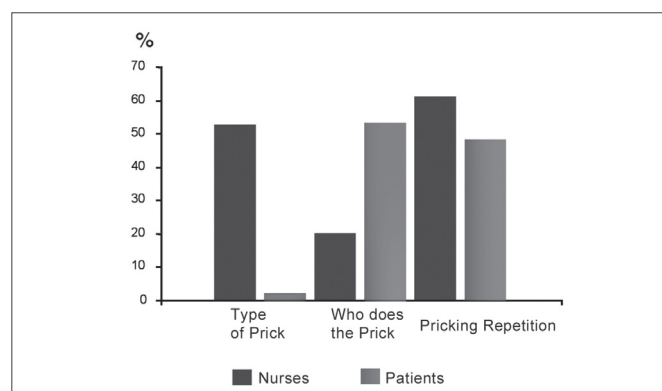


Gráfico 1 – Fatores influenciando procedimentos dolorosos

Non-invasive pain relief techniques may be adjuvant for its control, such as massages, breathing techniques, music, and hypnosis, among others<sup>20,21</sup>.

It is also good to challenge service routines. It makes no sense, but very often patients are waken up to receive a treatment which is not urgent. This sensitivity shall limit or suppress pain, using professional and technical means which are frequently considered "details"<sup>15</sup>. The experience of hospital routines shows that the daily accumulation of all unpleasant and painful sensations caused by care, in addition to their invasive character, significantly and holistically impair patients' quality of life. With the evolution of science and technology, and as a consequence, the discovery of new treatments, patients are submitted to a higher number of invasive procedures.

Taking into consideration the anguish lived by patients since the diagnosis of their disease, it is important to think about minor actions which may make all the difference for their life experience. In addition to being an ill body, this is a human, social, emotional and spiritual being with a disease which should not be treated as the target of experiments, but rather with dignity and quality of care.

It is important to check the prevalence of hospital iatrogenic pain. Through the evaluation of pain caused by care given to cancer patients one may contribute for a new awareness and way of action of health professionals. Iatrogenic pain prevention may be amplified with very simple gestures, but professionals must be aware of their existence.

## CONCLUSION

It is critical to think about the importance of care as fundamental part of patients and not only treat and cure the disease, because health mechanization may minimize communication and worsen suffering.

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