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Evolution of Interventional Pain Management and Its Barriers in Developing Countries

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The history of interventional pain management techniques dates back to Koller's invention of regional anesthesia in 1884 (1). Subsequently, regional anesthesia has developed into a distinct specialty using interventional techniques beyond simple neural blockade. In 1899, the first therapeutic nerve block in pain management was described by Tuffer (2) using spinal injection of cocaine to reduce leg sarcoma pain. Von Gaza (3) pioneered diagnostic block using procaine to determine the pathways of pain. In the twenty-first century, interventional pain management has entered the modern era with pioneers like Manchikanti et al. (4).

Although interventional pain management has progressed prominently, there are many inevitable differences in pain management strategies between developed and developing countries. Pain is often poorly controlled in developing countries (5). There are several reasons why pain of any type, is not adequately treated in these countries. The most important reasons are as follows:

1- Healthcare systems are not well developed. Pain management is less of a priority than diseases such as tuberculosis or AIDS. Low health care staff, misconceptions or outdated attitudes about pain management, insufficient knowledge about treatment choices are contributing factors (6).

2- Proper pain control needs appropriate assessment. There are various tools and questionnaires for assessing pain and planning a proper pain management protocol for each patient, which need to be allocated enough time to complete. A large number of patients and limited human resources do not provide sufficient time for physicians to adequately assess and appropriately manage pain, especially in chronic states (7).

3- Knowledge of caring nurses regarding pain management and adherence to established protocols are limited universally (8, 9). This shortcoming is more prevalent in developing countries.

4- Today, multidisciplinary approach to chronic pain management is a standard program to ensure good outcomes (10). Unfortunately, there are many reasons to limit this approach in developing countries.

5- In recent years, emerging drug therapies for chronic pain have been proposed and supported by communities, including the medical use of cannabis (11-13). But some cumbersome laws have prevented these new treatments from becoming common in developing countries.

6- In some cultures, pain tolerance may be seen as a sign of strength, or in labor, the presence of pain is considered necessary, which are proofs of the wrong attitude of some people toward pain management (14, 15).

7- Chronic pain patients' expectations of pain management are low or inappropriate. For example, in cancer patients, most attention is paid to chemotherapy or radiotherapy, which deviates from the patient's limited expectation of his/her pain treatment (7), or patients expect to be fully cured after one or two sessions, indicating patient's inadequate knowledge of pain management (16).

8- The range of available analgesic medications in developing countries is limited, and they may not be available immediately (17). Access to opioid analgesics, in particular, is problematic. This is partly due to outdated and strict legal restrictions that prevent physicians from prescribing opioids (18, 19) Patient's demand for these drugs is also reduced due to administrative barriers, fear of addiction or their high cost (20, 21). The World Health Organization (WHO) estimates that 5.5 billion people (more than 80% of the world population) do not have access to treatments for moderate to severe pain. Most of these people

live in developing countries (22).

9- Most researches in developing countries are related to palliative care; acute pain and chronic non-cancer pain has received less attention (23).

10) Because the income level of most people in developing countries is moderate to low, patients cannot afford the cost of equipment such as spinal cord stimulation (SCS). Also, the replacement or repair of epidoroscopic or endoscopic instruments imposes a high cost on hospitals or physicians, and insurance refuses to pay these costs.

As can be seen, barriers to pain management in developing countries are significant and include insufficient knowledge and poor attitude about pain management, low priority of pain treatment and lack or difficulty access to analgesics, high cost of some instrument for advanced pain procedures. Education plays a key role in overcoming these barriers (5), and we must all work together to reach a global standard for patient pain management.

Footnotes

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