Anaesthesia, Pain & Intensive Care
2001; 5/1:37-38

EVOLUTION OF PAIN MANAGEMENT

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Experiencing pain has always been a reality for human beings and seeking relief from that pain has always been a natural response.

Modern day observation of primitive societies provided some clue about prehistoric human reaction to pain. In these primitive societies, religion, magic and medicine were inseparable from each other for the treatment of pain or other ailment. These observartions indicate that prehistoric treatment of both spiritual and physical aspects of pain might have included ritual activity, medicinal plants, physical manipulation and the application of heat, cold and friction. Opium has also been used for pain relief from 1700 BC in ancient civilizations.

DEVELOPMENT OF PAIN MANAGEMENT METHODS.

In every era different methods have been tried to provide pain relief to patients in pain. In 16th century the French surgeon Ambroise Para was searching the ways to reduce operation bleeding. The method of pain relief remained in practice for almost one hundred years. In 1784 James Moore developed a compression apparatus that used to exert pressure on the nerve to produce analgesia. In 1873 Johnnes Esmarch refined the method further by substituting a bandage of rubber wound around the proximal portion of the limb. Among his writings, the great Muslim scientist Aviceina described the range of pain relief facilities available at his time. The most powerful was opium and snow and ice cold water were of lesser potency in this regard.

In 1807 Dummique Jean Larry, Napoleon's Surgeon General recorded in his memoires that the -19°F weather allowed him to perform painless amputations in the battlefield.

EVOLUTION OF PAIN CENTERS.

Significant development occurred in the management of pain between 1930 and 1995.

In 1930's the French surgeon Leriche described the treatment of causalgia and reflex sympathetic dystrophies.

In 1945 Livingstone explained pain mechanism in causalgia and related disorders.

During world war II Beecher made some important observations on pain in men wounded in the battle. His publication persuaded the medical community that the experience of pain was not always proportional to tissue damage and many other factors also modified it.

During the world war II Bonica and Alexandar appreciated the difficult problem presented by chronic pain patient. They observed that persistent pain is further complicated by increased suffering,depression, physiological problems and drug abuse. They also realised that he solution of complex pain problem required vast knowledge and clinical experience and those patients could be best managed by a team of organised specialists representing different medical disciplines. Thus they felt the requirement of multidisciplinary pain center.

POST WAR DEVELOPMENT OF PAIN CLINICS.

Immediately after world war II, many pain relief facilities were organised by anesthesiologists in U.S. Most of these were modality oriented and predominantly nerve blocks were used.

DEVELOPMENT OF PAIN CENTERS IN U.S.

Even though John Bonica introduced the idea of a team approach to the complex problem of pain in early 1950's it was not untill 1960 that he along with White (a neurosurgeon) developed one of the first multi disciplinary pain center at the University of Washington in Seattle. This clinic has served as a prototype for hundreds of such clinics in the world.

GROWTH OF PAIN CLINICS AROUND THE WORLD

In 1976 Medical World News listed only 17 pain clinics in the U.S. In 1977 a pain clinic directory

published by American Society of Anesthesiologists (ASA) listed over 300 pain control facilities. In 1979 directory 428 pain relief facilities were listed. In 1984 according to Bonica there were about 2000 pain relief centers in some 36 countries of the world. In 1998, there were about 7500 pain relief centers available in more than 60 countries of the world.

This tremendous rise in the number of pain relief centers in the world reflects increasing awareness of chronic pain and it's impact on our society.

Now a days it is unusual to find an academic medical center that does not have pain management service in USA and in UK. Nevertheless it is estimated that approx. 40% of patients with acute pain are not managed properly and even a greater number of patients with cancer pain are not getting adequate pain relief.

PAIN SOCIETIES.

During the last three decades several organisations whose purpose is to educate pain management professionals have been established. The International Association for Study of Pain (IASP) was incorporated in 1974. Soon after it's formation, the IASP sponsored the scientific journal "Pain", the first journal specifically devoted to scientific and clinical issues regarding pain. IASP presently has over 6000 members form 63 countries. The American Academy of Algology was formed later on.

GUIDELINES FOR ESTABLISHMENT OF PAIN RELIEF FACILITIES.

In 1990 the IASP set the guidelines regarding desirable charachteristics for pain treatment facilities. They are categorised as.

(1) Multidisciplinary Pain Center. This should include an anesthetist, a neuro physician, phychiatrist and a psychologist with full diagnosis and therapeutic services for out patient, in patient and emergency care. The center will be actively angaged in educational and research work.

(2) Multidisciplinary Pain Clinic. This will require identical facilities as multidisciplinary pain center but need not teach or research.

(3) Pain Clinic. It must have both out door diagnostic and therapeutic facilities and provide emergency care.

(4) Modality Oriented. Subserve only one modality of treatment such as nerve block or acupuncture.

In 1983 Royal College of Anaesthetists UK recognised pain as a sub specialty of anesthesia.

From 1993, six months training in pain relief is mandatory for appearing in fellowship exam in UK.

American board of anesthesia, also include one year training n pain management.

PAIN RELIEF FACILITIES IN PAKISTAN

There is no multi disciplinary pain center or clinic in the country. However pain relief facilities are available in Agha Khan Hospital, Liaquat National Hospital Karachi and Holy Family Hospital, Rawalpindi. In addition to this, modality oriented clinics are rapidly sprouting all over the country.

A revolution is underway in the clinical practice of pain management. Several factors are contributing to this revolution.

- Access to internet. People having chronic pain especially who are aware of computer technology, will come to know what is happening in the world about their disease.
- Awareness in medical professional community.
- Most important of all is the evolution of attitude in individuals with pain, who are no longer willing to suffer in silence.

IASP Pakistan chapter has also been established which is holding clinical and scientific sessions regularly. CPSP has included the subject of pain management in the syllabus of FCPS Pt II exam.

REFERENCES:

1 Carisons AM, Assessment of chronic pain I: Aspect of the reliability and validity of the visual analog scale pain 16:87-101-1983.

2 World Health Organisation cancer pain relief and palliative care. General. World Health Org. 1990.

3 Lysons AS, Pertrcelli JR: an illustrated history, NY, Harry N Abrams, 1978

4 Warfield CA: A history of pain relief hospital practice .23: 121-122, 1978

5 Armstrong- Davision MHH: the evolution of anesthesia Altricncham, UK,John Sherratand Son 1965.

6 American Pain Society. American Academy of Pain, Medical directory of pain management facilities Chicago. The Academy, 1989.

7 American society of Anaesthesiologist: Pain centers/ clinic Directory Pask Ridge III. The society . 1979, Bonica JJ: Evolution of pain concepts and pain clinics in anaesthesiology 3: 1 1-16, 1983.

8 Bonica JJ. The role of anaesthesiologist in the management of intractavle pain. Can . Med. Assoc. J; 65: 103-107, 1951.