

Current Status and Prospect of Pain Clinics in Korea

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한국 통증치료실의 현황과 전망

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오 흥 근

Modern anesthesiology was first introduced to Korea after World War II by American military medical staff. During the Korean War from 1950 to 1953, Korean (army and navy) military medical officers were first trained in anesthesia procedures, in both the United States and Korea, because of the urgent necessity for anesthesiologists.

In 1956 the Korean Society of Anesthesiologists was organized by 7 young anesthesiologists.

Due to the extreme shortage of anesthesiologists, it was almost impossible to develop pain clinics in the 1950's. However in 1956, the first case of stellate ganglion block for the patient with causalgia due to gun shot wound was reported, by an anesthesiologist, in the journal of Korean Naval Medical Corps.

The first reported treatment of celiac plexus block with alcohol for upper abdominal cancer pain was performed in 1968, at Yonsei University Hospital.

The first pain clinic was established, in September 1973, at Yonsei University Hospital.

Several months later Hanyang University Hospital opened its pain clinic.

In 1983, The Korean Pain Research Society, as a Korean chapter of IASP, was organized by multi-disciplinary members. The first journal of this society was published in 1991 and 127 members were registered with the society.

As well, pain clinic study circle was established by anesthesiologists in 1985 for the purpose of advancement of nerve block of pain clinic at bi-annual meetings. The Korean Pain Society evolved from this study circle in 1986. There are currently 312 members. It represents approximately 35% of Board Certified Anesthesiologists of Korea. Scientific meetings including refresher courses are held in the spring and fall to discuss and share information regarding basic aspects of pain clinic procedure and operation. Invitations have also been extended to guest lecturer to attend the meetings to present papers on current topic since the fall meeting of 1990. Journals of Korean Pain Society have been published since 1988, in conjunction with these meetings.

Before I start my presentation about Current Status of Pain Clinic, I would like to describe a little bit about the socio-medical background of

1992. 8. 24. 旭川에서 개최된 제26회 일본 Pain Clinic 학회 학술대회에서 발표된 내용임.

Korea. According to recent report by the Korean National Bureau of Statistics July 11, 1992, there were 31,524 physician registered to provide medical care to about 43.3 million population of South Korea. Amongst all physicians 894 are registered board certified anesthesiologists. Therefore this creates a ratio of one physician caring for 1,372 persons and 1 anesthesiologist per about 48,400 persons, respectively. This has caused a very heavy work load on Korean anesthesiologists. Therefore this caused the under-development of pain clinic.

Current Status

The new registrants to the Korean Pain Society members are increasing by nearly 60 members annually. About 83.4% of the society members are younger than 49 year of age and 83.3% of members have graduated from medical college after 1970. This suggest that the Korean Pain Society as a group is young in age, therefore we can anticipae continued growth and progress in the future of pain clinic in Korea.

Between 1971 and 1991 medical college in Korea have increased in number from 12 to 32, of these 8 are national and 24 are private medical colleges. Six national university hospitals have pain clinics caring for both out-patient and in-patient. Nineteen out of 24 private universities have pain clinics or related activities. Twenty five private university hospitals and their affiliated hospitals take care of in-patient,

but only 19 out of 25 hospitals have out-patient pain clinics. Fortunately Seoul National University Hospital opened a pain clinic last year. We expect their effort to aid in solving the current problems associated with the shortage of pain clinics in Korea.

Due to the shortage of qualified medical staff, only 9 out of 35 non-university affiliated teaching general hospitals perform pain control procedures. Six out of 9 general hospital have out-patient pain clinics. In addition to university and general hospital pain clinics, there are 11 private pain clinics including 2 private hospitals. They are trying to cultivate an alternate career life as Korean anesthesiologists.

There are currently 51 hospitals and 42 out-patient clinics with pain clinic activity in Korea (Table 1).

This map shows the distribution of pain clinics in Korea. Seoul has the most concentration. Out side of Seoul, the remainder of pain clinics are evenly located throughout Korea(Fig. 1).

The figure 2 shows that the number of pain clinic facilities in private university hospital have been rapidly increasing annually after the organization of pain clinic study circle by anesthesiologists in 1985. The number of pain clinic facilities in teaching hospitals and private pain clinic have also steadily increased.

Pain clinic for out-patients have also increased significantly after the organization of the Korean Pain Society in 1986.

Table 1. Pain Clinic Activities in Korea

No.(%)

	College	Hospital	OPD Clinic	Ward
National Univ.<n=8>	6(75)	6	6	6
Private Univ.<n=24>	19(75)	25	19	25
Teaching Hosp.<n=35>		9	6	9
Private Clinic		11	11	2
Total	25(77)	51	42	42

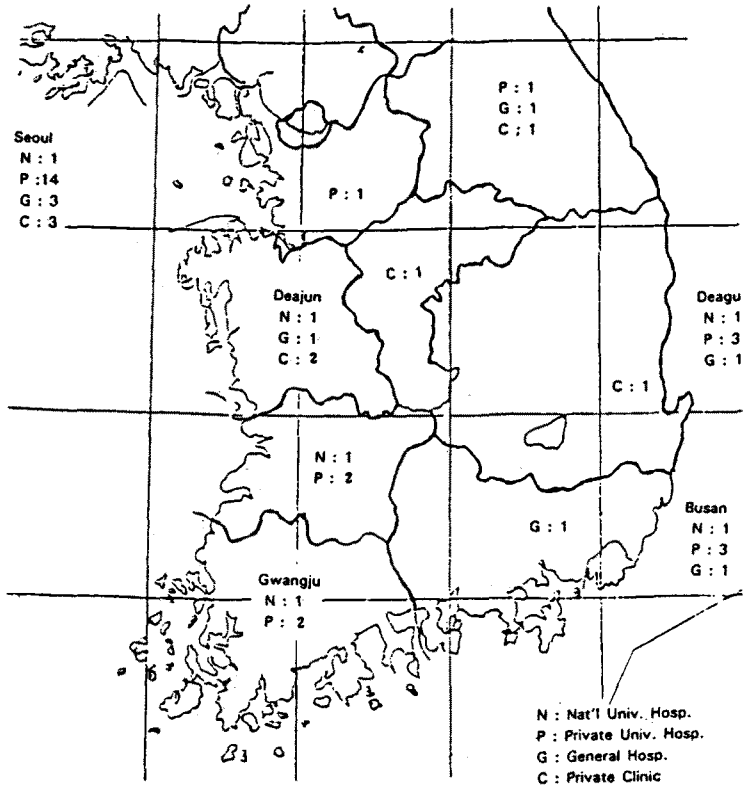


Fig. 1. Distribution of pain clinic.

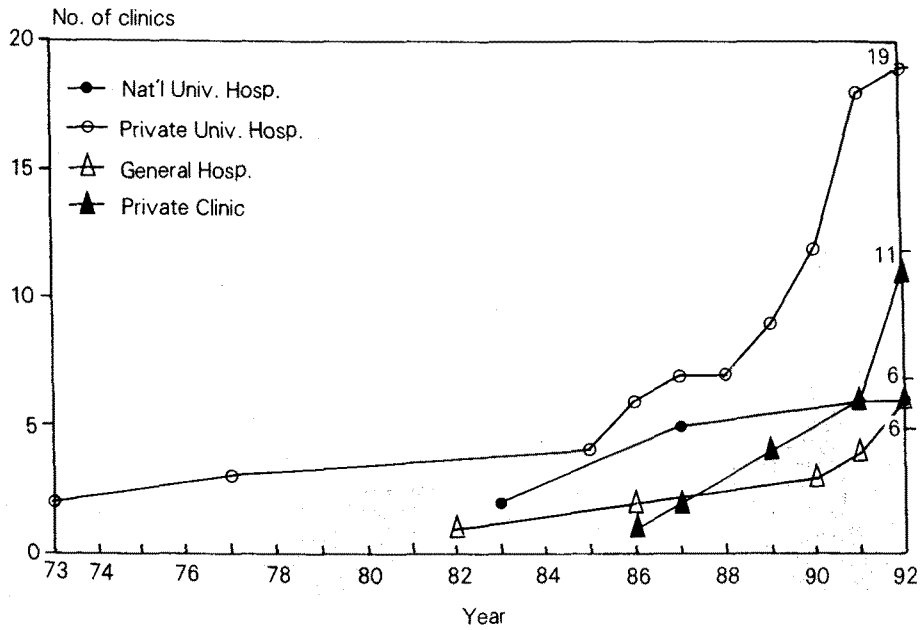


Fig. 2. Opening of pain clinics by year.

The number of full time staff working in pain clinics average 1 to 6 in university hospitals, but the number of anesthesiologists actually working in most pain clinics are only 1 or 2. In these university hospitals where they have 3 to 6 pain clinicians, only 1 or 2 physicians actually cover the pain clinic through rotating shift programs. Only 3 university hospitals and 1 general hospital have full-time physicians practicing exclusively in pain clinic.

This accounts for about 13% of pain clinic of university and general hospitals. In most of the university and general hospitals, physicians assigned to pain clinic also work in the operating room.

One or two nurses or nurse-aid are assigned to pain clinic in most university and general hospitals.

Most pain clinics are open 5 to 6 days of the week in Korea.

As yet, we have no multi-disciplinary pain clinic in Korea. However we have functionally similar system. Whenever a problem arises with patients, a consultation with an appropriate specialist takes place. (To establish a multi-disciplinary center, further cooperation and discussion must take place amongst the specialties). At the present time, we lack sufficient understanding from the other specialties and from the public. It is a problem that needs to be addressed in the near future.

In some private hospitals, they work in conjunction with rehabilitation specialist and physiotherapist.

The number of beds for pain treatment in OPD, at most university and general hospitals range from 1 to 5 beds. However in private pain clinic, it varies from 5 to 15 beds in order to take care of more patients. The number of patients treated per day in university and general hospitals at OPD varies from 3 to 25 patients; while the number of patients in private clinic vary from 10 to 150 patients with an average of 40 patients per day.

The number of beds for in-patients with pain in most university and general hospitals are ranged from 3 to 5 beds. Only 1 private university hospital and 1 private hospital have 10 beds and 1 private university hospital and 1 private hospital have 15 beds. However, half of the university hospitals(48.4%) are unable to provide beds for in-patient.

The number of in-patients treated daily in university and general hospitals varies from 1 to 15 patients.

Most pain clinics at university and general hospitals mainly take care of low back pain, and cancer pain, particularly related to upper abdominal and lung cancer, post-herpetic neuralgia, neck and shoulder pain, trigeminal neuralgia and facial palsy. However, in private pain clinics, low back pain represent the largest por-

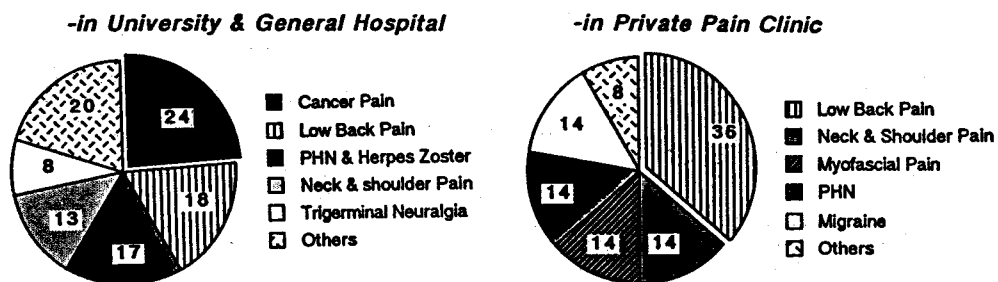


Fig. 3. Indications(%) treated in pain clinic.

Table 2. Nerve Block Performed Commonly

Hospital Block	Nat'l Univ.(n=6)	Private Univ.(n=25)	General(n=9)	Local(n=11)
Stellate ganglion	6	24	7	11
Sympathetic ganglion				
Thoracic	5	12	3	1
Lumbar	6	16	4	2
Celiac plexus	6	20	4	1
Epidural	6	22	8	11
Subarachnoid	4	13	4	1
Suprascapular nerve	6	18	4	10
Trigeminal nerve	5	9	2	1
Miscellaneous	4	10	4	11

tion of pain related treatment. The remaining pain related care is for: neck and shoulder pain, myofascial pain syndrome, postherpetic neuralgia and migraine(Fig. 3).

Nerve blocks are the main procedures in pain clinic at most university hospitals in Korea(Table 2). Stellate ganglion block is the most frequently used procedure in most(94%) of pain clinics. Single or continuous epidural blocks are also widely used for acute and chronic pain patients in 93% of facilities.

Epidural opioid is also generally used for advanced cancer patients. Implantation of the epidural portal system with ambulatory infusion device has been introduced recently. PCA system using Baxter and CADD-PCA for cancer pain is also available.

Celiac plexus block with neurolytics for upper abdominal cancer pain is also commonly performed in about 84% of university hospitals. About 570 cases of splanchnic nerve block were performed with satisfactory result at Yonsei University Hospital in the past 23 years.

Drug therapy with analgesics is also applicable at most hospitals. Oral morphine tablets (MS Contin) have been generally prescribed for

advanced cancer patients with pain since 1986. The Korean Government's preventative measures against the abuse of narcotics is via strict drug control laws. But this has resulted in some of the advanced cancer patients with intractable pain not receiving the appropriate dosage of narcotics due to the limit on narcotics provided by government regulations.

In addition to nerve blocks, pain management in many hospitals include physical electrical stimulation technique using TENS, SSP or acupuncture needle electrode(China made portable acupuncture anesthesia apparatus). Recently LASER therapy has been increasing in tendency. Thermogram is also used at 3 pain clinics.

Teaching

In 50% of university hospitals, anesthesiology residents rotate in shifts at their respective pain clinic for an average of 1 to 2 months in their 2nd or 3rd year of training(table 3). The training period for residents has also been extended from 3 years to 4 years commencing in 1990. This will enhance the residents' opportunities to gain valuable pain clinic training and

Table 3. Pain Clinic Resident Training

Hospital	Grade	Duration(months)						
		1	2	3	4	5	6	12
National Univ.	II	1				2		
	III	1			1			
Private Univ.	II	2	2	1		1	2	1
	III	1	1	1				
General	II			1				

experience. Other development encompass pain management material being included in the written and oral board examinations in Anesthesiology. And in some university hospitals, an intern is also assigned to the pain clinic for 2 to 3 weeks training.

Classes in Anesthesiology for the medical students now include 1 to 2 hours of pain management. Most medical colleges are also adding pain management to clinical clerkship.

Current Problems confronting Korean Pain Clinics are:

1) Policy of extreme low payment on treatment by the universal health insurance; 2) shortage of qualified manpower; 3) lack of awareness of activity in pain clinic from the patient and physician specialist; 4) insufficient support from the hospitals; and 5) the inability to display specific, pain clinic' signs on the premises of private practices.

The Prospect of Pain Clinics in Korea hold much promise due to the following developments:

1) Most university hospitals now have pain clinic facilities except for the most recently established medical school and their treatment programs are expanding to meet the needs of their patients.

2) There is a growing emphasis on the education and training of students and house staffs in conjunction with the restructuring of better coverage for the pain clinic treatment through the universal health insurance.

3) By laws regarding the display of "Pain Clinic" should also be allowed in the near future to clearly distinguish those clinics that offer pain control as part of their treatment for patient's needing and seeking such treatment.

Other medical speciality disciplines recognizing and supporting the importance of pain clinics, and young doctors training in anesthesiology having greater interests in pain management promise a bright future for pain management in Korea. There will be experiences with growing pains in any developing field, however with awareness and utilization by both patients and physicians should ensure adequate pain management and improve the quality of life for those patients requiring pain clinic care. Considerations such as the board certification for pain physicians by the Korean Pain Society should also lend much assistance to this cause.

It can be confidently said that the Korean Medical Profession is placing much emphasis on the improvement of pain clinic standards, both quantitatively and qualitatively, in order to ensure the quality of life through pain clinic care for those suffering from pain.