Spine Surgery in Asia Pacific Region
- The Past, Present and Future -

Hiroshi Yamamoto
Past Chairman
WPOA Spine Section
WPOA (Western Pacific Orthopedic Association)

Japan, Korea, Taiwan
Hong Kong, Thailand, Malaysia
Singapore, Philippines, Indonesia
Australia, New Zealand

WPOA Congress
1st 1965, Japan
2nd 1968, Hong Kong
3rd 1970, Manila
4th 1973, Kuala Lumpur
5th 1976, Seoul
6th 1979, Taipei

Spine section was launched as the first sub-specialty section
WPOA, Spine Section 1979

Chairman   Secretary-Treasurer

Yau, H.K.        Acosta, Phil.

Section Council Members

Griffiths          Leong          Reksopur.        Spardan
Australia         H.K.         Indonesia         Indonesia

Inoue             Yamamoto       Moon
Japan             Japan          Korea

Nicholson         Sembrano       Chacha          Yu
New Zealand       Philippines    Singapore       Taiwan

Keokarn           Chotigawan      Subraman.
Thailand          Thailand        Malasia
<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Section Chair</th>
<th>Organising Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>Manila</td>
<td>Yau</td>
<td>Acosta</td>
</tr>
<tr>
<td>1982</td>
<td>Perth</td>
<td>Yau</td>
<td>Griffiths</td>
</tr>
<tr>
<td>1983</td>
<td>Tokyo</td>
<td>Yau</td>
<td>Inoue</td>
</tr>
<tr>
<td>1985</td>
<td>Bangkok</td>
<td>Inoue</td>
<td>Keokarn</td>
</tr>
<tr>
<td>1989</td>
<td>Singapore</td>
<td>Inoue</td>
<td>Chacha</td>
</tr>
<tr>
<td>1991</td>
<td>Seoul</td>
<td>Moon</td>
<td>Moon</td>
</tr>
<tr>
<td>1992</td>
<td>Jakarta</td>
<td>Moon</td>
<td>Reksopurdjo</td>
</tr>
<tr>
<td>1994</td>
<td>Taipei</td>
<td>Yu</td>
<td>Yu</td>
</tr>
<tr>
<td>1996</td>
<td>Kochi</td>
<td>Yamamoto</td>
<td>Yamamoto</td>
</tr>
<tr>
<td>1999</td>
<td>Pattaya</td>
<td>Yamamoto</td>
<td>Chotigawanich</td>
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Spine Surgery in Asia-Pacific

Era of Pre-WPOA Spine Section: ~ 1978
• TB spine: Curreting and fusion
• Spine deformity: Cast correction and fusion
• Spine trauma: fusion

After the Start of the Spine Section: 1979 ~
• Scoliosis: Harrington Instrumentation
• Ankylosing spondylitis: Surgical correction and fusion
• Myelopathy: Wide decompression by using air drill
Mission of WPOA Spine Section

- To advance spine care in Asia-Pacific
- To educate spine surgeons by going around the Asia-Pacific countries

Spinal Operative Courses

1998: Bangkok
3rd Practical Spinal Operative Course, Chiba
3rd Congress of the Spine Section, Tokyo, 1983
Spinal Operative Course

Pre-op. discussion
Live surgery
Post-op. discussion
Faculties ↔ Attendants
Pediatric spine disorders are the common topics

• 1\textsuperscript{st} Combined Congress 1992 Jakarta
• 2\textsuperscript{nd} Combined Congress 1994 Taipei
• 3\textsuperscript{rd} Combined Congress 1996 Kochi
• 4\textsuperscript{th} Combined Congress 1999 Pattaya
3rd Combined Congress
Spinal & Pediatric Section, WPOA

1996    Kochi

370 attended
from 19 countries

206 spine papers

19 lectures
New Council Members at Kochi Congress

Hong Kong  Dr. K. Luk,  Dr. L. Hsu
Singapore   Dr. H-K Wong
Taiwan      Dr. P-Q Chen
Malaysia    Dr. K.S. Sivananthan
            Dr. D. Choon
Japan       Dr. S.Kokubun
            Dr. K. Shimizu
Australia   Dr. I. Trode, Dr. O. Osti,
Korea       Dr. J-Y Chung
Vietnam     Dr. V.V. Thang
In the Era of the WPOA Spine Section  1979 - 2000

- Decompression using diamond head drill, for myelopathy
- Reduction and fusion using pedicle screwing, for unstable lumbar spine
- Post. surgery using pedicle screwing, for scoliosis

A contribution of Hong Kong university as the secretary office
2011 WPOA → APOA

Asia Pacific Orthopedic Association

in the Era of APOA Spine Section  2001 - 2013

Pedicle screw fixation for cervical spine
Less invasive microendoscopic surgery
Vertebroplasty, kyphoplasty for osteoporotic fract.
APOA Spine Section

2015 Asia Pacific Spine Society, APSS

10th Combined Congress of APSS
2015 Hong Kong

11th Combined Congress of APSS
2016 Melbourne

* 37 years history since 1979

* Challenges for our future
## Nationwide Surveys for Spine Surgery in Japan

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>&gt; 60y.</th>
<th>Complications</th>
</tr>
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<tbody>
<tr>
<td>1994</td>
<td>18,334</td>
<td>37 %</td>
<td>8.6%</td>
</tr>
<tr>
<td>2001</td>
<td>16,157</td>
<td>49 %</td>
<td>8.6%</td>
</tr>
<tr>
<td>2011</td>
<td>31,380</td>
<td>63 %</td>
<td>10.4%</td>
</tr>
</tbody>
</table>

### Complications rate:
- Scoliosis: 12%
- Vert.fracture: 16%
- Kyphosis: 20%
More education on preventing complications will be needed.
Post-operative acute and chronic pain

Drop in patient satisfaction for surgery care

by using neuropathic pain drugs
physical reconditioning
psychological programs

Musculoskeletal Disorders

2\textsuperscript{nd} greatest cause of disability

affecting 1.7 billion people

Low back pain : 0.6 billion

Neck pain : 0.3 billion

increased by 45% over the last 20 years
Multicenter RCT Studies in A-P Region

Survey for
* Lumbar Canal Stenosis
* Osteoporotic Compression Fracture
* Senile Spine Deformity etc.

Healthy spine condition is a key element of “Active Aging and Happiness” of people
Future Perspective for Innovative Spine Care

Translational researches on bone, cartilage and spine-nerve regeneration therapy using iPS cell

More less-invasive surgeries combined with local biological regeneration therapies
Certification System for APSS-trained Spine Surgeons

Certify the expertise surgeons trained by

* APSS scientific programs
* Operative courses programs
* Visiting fellowship programs

working closely with national spine societies
Asia Pacific Spine Society

National Spine Society

National Spine Society

National Spine Society

Spine Societies on the other side of the Pacific Ocean
Asia Pacific Spine Society

Let’s encourage the younger spine surgeons to join us in our activities and learn more with “APSS Spirit of Challenge”

Our society will achieve a lot more in accomplishing our missions.