Finnish-Austrian combined trauma courses 1981–2011

Jan-Magnus Björkenheim and Jan Lindahl
Helsinki University Central Hospital, Helsinki, Finland

Background

Members of every orthopaedic community around the world are interested to gain new knowledge in their special field of interest. The common feature is to improve the professional skills and achieve new levels of knowledge. This can be done in many ways. The traditional and common way is to read and follow international and domestic journals, attend international courses and hands-on courses. Today internet provides each orthopaedic surgeon with a never ending flow of information. Many courses have nevertheless, been able to remain popular due to the fact that they are well organized and direct their information on special targets. These events also provide the participants the possibility to communicate with each other. Many of these courses have become, however, mega-courses and very non-personal.

The Austrian-Finnish combined trauma course is unique in Europe. Both societies have been active in their neighbourhood and the Austrians in the German speaking federations. From the Finnish point of view, our main international networks are the Nordic Orthopaedic Federation (NOF), the European Federation of National Associations of Orthopaedics and Traumatology (EFORT) and many special organizations covering all the fields in orthopaedics and traumatology. Large meetings, such as the AAOS meeting are very popular and many of our members regard it as the first choice of international meeting. These
traditional institutions still provide the individual surgeon very specialized and on-target information and knowledge.

On the other hand there is a need for small meetings, since they are more individual, make social contacts easier and may effectively activate the participants. Since 1981, in alternating years, a week long instructional course program conducted in Austria, has evolved in cooperation with the Österreichische Trauma Gesellschaft.

The beginning

At the end of the 1970s, and in the beginning of the 1980s the Finnish Orthopaedic Association started to screen the possibility to arrange a combined meeting covering many aspects of traumatology with a Society in central Europe. Traditionally we had good connections as well to the AO Foundation as to German trauma centers and the first steps to arrange a combined trauma meeting were taken in April 1980. Very soon the collaboration with Prof. Emil Beck started. Beck was in those days head of the Hospital in Feldkirch and also president of the Österreichische Trauma Gesellschaft. To our satisfaction Prof. Beck found the idea of arranging a combined trauma meeting between Austria and Finland interesting. This new concept was quite extraordinary, since there had been virtually no active contact in this aspect between our two countries. Many questions arose such as language barriers and maybe also cultural differences.

Scientific program

The cornerstone for a successful meeting is a scientific program of high standard, covering many of the problems actual at the time of the meeting. In order to ensure this high standard, many famous orthopaedic and trauma surgeons from all over the world have taken part in our events throughout the years.

From the very beginning, the aim of the scientific program was to cover the new rising field of interest such as endoprosthetic surgery, arthroscopic surgery, trauma surgery and the development of new surgical implants providing both orthopaedic and traumatologic post-graduate lectures and workshops. On the other hand, the goal was to encourage the participants
Other Austrians who have played a major and active role are for example Johannes Poigenfurst, Vladim Vecsei and Jurg Böhler from Vienna, Rudolf Szyszkowitz from Graz and Herbert Resh from Salzburg. Many younger colleagues such as Karl-Peter Benedetto, Gernot Sperner, Herbert Daniaux, Karl Golser and Thomas Klestil have contributed to the success of the course. Many of these colleagues have also participated in our national meetings in Finland.

Faculty members from Austria during the last decade have been V. Smekal, Markus Wambacher and Franz Kralinger from Innsbruck, J. Schauer from Salzburg, F. Unger from Wels, Franz Ortner and W. Menth-Chiari from Wiener Neustadt, C. Kollersbeck, Manfred Mittermaier and F. Genelin from Schwarzach, Reinhard Lorber from Klagenfurt, Georg Thewanger from Linz, and Florian Fankhauser, Christian Boldin, Franz J. Seibert, Michael Fellinger, O. Leithgöb, R. Mauschitz and Hans Clement from Graz.

Emil Beck’s position was during all these first years very central and he was the spirit of this combined course. For his activity, Emil Beck was appointed honorary member of the Finnish Orthopaedic Association in 1987.

### Table 1. Finnish-Austrian orthopaedic trauma courses 1981-2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Course place</th>
<th>Chairman</th>
<th>All participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>Schruns</td>
<td>V. Vahvanen, P. Paavolainen</td>
<td>56</td>
</tr>
<tr>
<td>1983</td>
<td>Bad Hofgastein</td>
<td>Turkka Tunturi</td>
<td>72</td>
</tr>
<tr>
<td>1985</td>
<td>Oberlech</td>
<td>Turkka Tunturi</td>
<td>94</td>
</tr>
<tr>
<td>1987</td>
<td>Ischgl</td>
<td>Jan-Magnus Björkenheim</td>
<td>112</td>
</tr>
<tr>
<td>1989</td>
<td>Oberlech</td>
<td>Jan-Magnus Björkenheim</td>
<td>106</td>
</tr>
<tr>
<td>1991</td>
<td>Obergurgl</td>
<td>Lauri Pasanen</td>
<td>90</td>
</tr>
<tr>
<td>1993</td>
<td>Obergurgl</td>
<td>Lauri Pasanen</td>
<td>98</td>
</tr>
<tr>
<td>1995</td>
<td>Oberlech</td>
<td>Jan-Magnus Björkenheim</td>
<td>84</td>
</tr>
<tr>
<td>1997</td>
<td>Ischgl</td>
<td>Jan-Magnus Björkenheim</td>
<td>94</td>
</tr>
<tr>
<td>1999</td>
<td>Ischgl</td>
<td>Jan-Magnus Björkenheim</td>
<td>88</td>
</tr>
<tr>
<td>2001</td>
<td>Oberlech</td>
<td>Harri Heliö</td>
<td>83</td>
</tr>
<tr>
<td>2003</td>
<td>Oberlech</td>
<td>Harri Heliö</td>
<td>74</td>
</tr>
<tr>
<td>2005</td>
<td>Obergurgl</td>
<td>Juha Kalske</td>
<td>84</td>
</tr>
<tr>
<td>2007</td>
<td>Serfaus</td>
<td>Juha Kalske</td>
<td>70</td>
</tr>
<tr>
<td>2009</td>
<td>Oberlech</td>
<td>Jan Lindahl</td>
<td>88</td>
</tr>
<tr>
<td>2011</td>
<td>Zauchensee</td>
<td>Jan Lindahl</td>
<td>101</td>
</tr>
</tbody>
</table>
**Topics**

Knee arthroscopy was introduced into orthopedic routine work during the early 1980s. Therefore it is natural that arthroscopic surgery has been a popular topic during all courses covering not only the knee, but also the shoulder, elbow, wrist and ankle. Arthroscopic surgery has experienced technical refinements and it has increasingly replaced conventional operative procedures. Arthroscopic surgery has played an important role during every course.

Endoprosthetic replacement of hip, knee and shoulder has been thoroughly discussed and the importance of the optimal operative indication, correct operative technique and choice of implants as well as effective follow-up, seen as the results from our nationwide registers, has always been emphasized.

New techniques for correcting and stabilizing the spine have attracted much interest. The development of new instrumentations has had a revolutionary impact on the treatment of both orthopaedic disorders and fracture-dislocations of the spine. The use of computer-assisted navigation in spinal surgery was adopted in the 1990s and widely discussed and introduced in our courses.

The fracture care has changed tremendously since the start of our combined meeting. New aspects and ideas made by Austrians and Finns have been presented. The introduction of new intramedullary implants and the LCP principle have also played an important role in the scientific program, together with new strategies in open and multiple fractures. The principles of external fixation were presented in a memorable and eccentric way by Ilizarov. His lecture is still one of the highlights in course history.

The treatment of pelvic ring injuries has changed a lot during the last 30 years. In the 1970s, external fixation devices became popular for definitive treatment of unstable pelvic injuries. Later, it became clear that an anterior external frame could not restore enough stability to an unstable (type C) disruption of the pelvic ring to allow early mobilization of the patient. Thus, methods of open reduction and internal fixation (ORIF) and later on percutaneous screw fixation techniques were introduced. Less invasive intrapelvic approach to pelvic surgery was first described by the Helsinki group, Eero Hirvensalo and Jan Lindahl, in 1993. Several presentations concerning this topic have been presented on these courses. Intrapelvic approach is nowadays used both in pelvic ring and acetabular fracture surgery in many trauma hospitals in Nordic countries, Europe, Middle East, and USA.

Knowledge of basic surgical anatomy is of course fundamental to each surgeon. The Graz group, Wolfgang Grechenig and Gerolf Peicha, have presented their scientific results and opened our eyes for new biological and biomechanical findings to treat fractures and orthopaedic disorders effectively.

---

*Figure 4. Oberlech 1985: Kalevi Österman (in the left), Risto Nikku, orthopaedic surgeon from Austria, Markku Yli-Jama, Pertti Vänttinen, and Antti Eskola.*
Figure 5. The fourth course in Ischgl 1987. Emil Beck (in the front), Heikki Antila, Perti Myllynen, Anne Alberty, unknown colleague, Peter Lüthje, unknown colleague, Seppo Seitsalo, and Arne Vara.

Figure 6. Course picture 1987: the first row Esko Kaartinen (in the left), Pertti Vänttinen, Timo Niinimäki (in the right), the second row Lauri Pasanen (in the left), unknown colleague, Turkka Tunturi, Soini Ryöppy, Veikko Avikainen (in the right), the third row Olai Snellman (in the left), Olavi Nelimarkka, Ilmari, the fourth row Timo Silvennoinen (in the left), Gösta Hagman, unknown colleague, Kari Saikku (in the right), the fifth row Ilkka Anttila (in the left), Arne Vara, Erkki Karaharju, Anne Alberty, Pekka Siitonen, the sixth row Heikki Antila (in the left), Jan-Magnus Björkenheim (in the right), the seventh row Eero Ervasti (in the left), Markku Yli-Jama, Emil Beck, Seppo Hakkarainen (in the right), the last row Pentti Rokkanen (in the left), Timo Myllylä, Heikki Aho, Kari Aalto, Henrik von Bonsdorff, Olavi Suomalainen, Matti Paananen, Risto Nikku (in the right).

Figure 7. The Finnish floorball team 1989.
Figure 8. Ilizarov ring fixator workshop in Obergurgl 1991; Erkkki Karaharju (in the left), Erik B. Riska, and Pär Slätis (in the right).

Figure 9. The seventh course in Obergurgl 1993; Mrs. Emil Beck (in the right), Lauri Pasanen, and Emil Beck.

Figure 10. Seppo Kukkonen in Oberlech 1995.

Figure 11. Oberlech 1995: Chairman of the course Jan-Magnus Björkenheim (in the left), Emil Beck, and Martti Hämäläinen.
Bone tumors had a session of their own conducted by the experience of the Mayo Clinic presented by Frank Sim.

Many other topics have been on the agenda, such as Rescue in the Alps, medical service of the Austrian alpine skiing team and introduction of new implants and techniques. Most of the lectures have been published in the Finnish Journal of Orthopaedics and Traumatology published by the Finnish Orthopaedic Association.

Workshops

The participants have during the years been able to improve their knowledge and skills in using new implants provided by the Industry. The external fixation workshop brought out artistic features among the participants and their designs turned out to be good examples of modern art.

Social program

Every meeting must have a good and inspiring social program. For the Finns, the possibility to ski in the fabulous Austrian alpine centers, has been a dream come true. On the other hand it has been as inspiring to get acquainted to many Austrian colleagues. The many floorball games outside the hotels have been a success. The Austrians painted in their national red and white and the Finns in blue and white national colors create a boisterous frolic every time. Many of the players could be chosen to the Hall of Fame, such as the incredible goal tender Johannes Poigenfürst, the magnificent center forward Frank Sim and the stone...
hard defender Esko Vainio and the non-corruptible referee Vesa Hamunen.

The evolution of the slalom competition shows the increasing skill of the participants. The competition is always arranged in a professional way and led by Olympic winners such as Patrick Ortlieb. The sledging competitions have rendered many fantastic stories.

**Future**

Europe has changed into a more open society, permitting for different professions many opportunities to meet and exchange ideas. Our combined trauma course is nevertheless unique in Europe. Its strength is that it is small and truly connects the two Orthopaedic Associations acting as a living forum to share knowledge, development and tying us strongly together. Therefore this combined course has an important function in the future.

**References**

Figure 16. The grand old man of Finnish-Austrian orthopaedic trauma courses Vesa Hamunen (in the left), Jan Lindahl, Harri Heliö and Seppo Honkonen in Obertauern 2005.

Figure 17. Organizing committee 2007: Wolfgang Grechenig (in the left), Mikko Manninen, Jan Lindahl, Juha Kalske, and Gerolf Peicha.

Figure 18. Course participants in Serfaus 2007: Ari Huhtapelto (in the left), Jukka Nyrhinen, Petra Elo, Jussi Elo, Heikki-Jussi Laine, Seppo Honkonen, Markku Linden, Seppo Laurila, Markku Härkönen, and Pasi Rinne (in the right).
Figure 19. The 15th course in Oberlech 2009.

patients who suffer from an untreated or overlooked compartment syndrom may suffer ischemic contracture, as described by Vollmann (1881), which clinically corresponds to a contracted non functional limb.