In Touch With EKA

ESSKA - European Knee Associates Autumn Newsletter

Contents

1) Message from the Chairman p.2-3
2) Message from the Past Chairman p.4-5
3) EKA at ESSKA Speciality Days in Warsaw 2021 p.6-7
4) Medial Pivot in TKA p.8-9
5) Robotics in Knee Arthroplasty p.10-11
6) EKA on Social Media p.12-13
7) Keeping in Touch with Members: ESSKA Webinars p.14-15
8) EKA Membership p.16
Message from the Chairman

Michael Hirschmann
EKA Chairman

Dear ESSKA and EKA members,
dear colleagues, dear friends,

EKA is the European expert group of knee surgeons within ESSKA, which focuses on the treatment of all aspects of degenerative knees. Degenerative knee surgery is our passion!

It is my great pleasure and privilege to chair the EKA board for the upcoming two years and serve all EKA members in the aim to develop and move the degenerative knee section of ESSKA forward. First, I would like to thank the previous EKA chairman, Dr. Nanne Kort and the previous board members for their fantastic work and leadership.

During the last years EKA has been established as the educational ESSKA brand covering all aspects of joint-preservation and joint-replacement for degenerative knees.

With the new EKA board members we have put together a fantastic dream team, which will bring EKA forward into a bright future.

The EKA Board 2020-2022:

EKA Chairman: Prof. Dr. Michael Hirschmann (CH)
EKA Past Chairman: Dr. Nanne Kort (NL)

EKA Vice-Chairman: Prof. Dr. Reha Tandogan (TR)
EKA Secretary: Dr. Bruno Violante (IT)
Industry Relation: Daniel Günther (DE)
Education: Prof. Dr. Enrique Gomez Barrena (ES), Dr. Geert Meermans (BE)
Membership: Dr. Octav Russu (RO)
Research/Focus Groups Coordinator: Dr. Rene el Attal (AT), Dr. Antonia Chen (USA)
Osteotomy: Dr. Steffen Schröter (DE), Prof. Dr. Michael Liebensteiner (AT)
Fellowship: Dr. Guillaume Demey (FR), Dr. Pawel Skowronek (PL)
Social Media Content: Dr. Ricardo Compagnoni (IT), Dr. Trifon Totlis (GR)
International Societies Ambassador: Dr. Pier Indelli (USA)
Board at Large: Dr. Michael Clarius (DE), Prof. Dr. Alfredo Schiavone Panni (IT), Prof. Dr. Simon Donell (UK), PD Dr. Oliver Kessler (CH), Dr. José Filipe Salreta (PT), Dr. Daniel Perez Prieto (ES)

EKA has established a continuing basic course programme for osteotomy and total knee arthroplasty and we will now extend this to advanced degenerative knee surgery. EKA plans for specialized courses such as revision TKA or personalized knee arthroplasty.

EKA has established its travelling fellowship programme across knee centers in Europe.
We will extend this fellowship programme to another level and develop a mentorship programme for EKA members.

EKA has established scientific focus groups leading the scientific research in various aspects of degenerative knee surgery such as osteotomy, femoral and tibial component orientation or fast track knee surgery. These focus groups have published numerous consensus or expert group articles in KSSTA or JEO. We will introduce new focus groups on hot topic of our field such as personalized total knee arthroplasty, small implants or infection, early OA, digital orthopaedics and revision TKA. It is our aim to extend the consensus article publications in KSSTA and JEO even further.

EKA has established a social media task force and EKA newsletter “In Touch With EKA”, which will help us to get in contact with the outside world as well as facilitate communication with our members. In this sense we will run our regular board meetings digitally.

EKA will build on the already established collaboration with the American Association of Hip and Knee Surgeons (AAHKS) and European Federation of National Associations of Orthopaedics and Traumatology (EFORT).

Taking part in our activities is a great opportunity to get an update on latest developments in degenerative knees surgery and meet old and make new friends in a great scientific and practical meeting.

It offers the chance to get into interaction with world class international knee experts under the umbrella of respect and friendship.

Come and join this unique professional, scientific and social section which specialises on all aspects of degenerative knee surgery.
Message from the Past Chairman

Nanne Kort
EKA Past Chairman

Proud, grateful, honored and optimistic. Those are the words that come first in mind as a leaving chairman. We are living in challenging times, we have multiple crises in the world, of which COVID-19 is the one currently impacting all our lives and my thoughts go out to all direct and indirect personal suffering because of it. COVID-19 also united us in several ways. United, we published insights on the impact, and together as scientific societies (EKA, EHS and AAHKS), we published recommendations.

All good things evolve from collaboration. That is why I am proud, grateful and honored to see this work at the end of my term. But I also see a lot of exciting things happening in the world. Things that were already happening before COVID-19 hit us. This is another reason why I start this letter with: Proud.

My chairman period was during the first years of the fourth phase of the industrial revolution, which I find exciting. After around 250 years we closed the third phase (Introduction of the Computer) and entered the fourth. A new period that is characterised by the fusion of the digital, biological, and physical worlds, as well as the growing utilisation of new technologies. A period that will also signal a new era in surgery.

During my early years as orthopedic surgeon, I worked on maturing care pathways. By using Business process redesigning, Medical process redesigning, Lean, Six sigma and all other methodologies, we were able to optimise hip and knee arthroplasty significantly. This work reduced the long length of stays in arthroplasty to overnight or even daycare surgery. And now we are at the forefront of the next step: Data-driven Healthcare. We can make the healthcare more transparent and use technology to evaluate, simulate and stimulate. Robotic Assisted Surgery and Patient engagement platforms combined with wearables will give a tsunami of data. If we canalise this data in the right way, we have so many opportunities to have multiple closed feedback loops and use the PDCA cycles in optima forma.
This is why I am so grateful and optimistic about the years ahead. Let’s enter this new era in surgery. I plea for looking forward instead of through the rear mirror, and approach the potential of Data Driven Healthcare in different ways than we are used to in traditional orthopedics. We are adding software to our traditional hardware.

I believe in a care system where the Patient is really in the center, while we are at the forefront of innovation. Then, all our patients receive tailor-made care, and we as care providers learn continuously and directly from all decisions that we make. We have technologies at our proposal that facilitate the maximum synergy between doctor and technology.

In my practice working with Robotic-arm Assisted Surgery and a data platform, I have insight on how I am doing in most of the process steps in all my arthroplasty surgeries.

This digitisation gives me the possibility to look for possibilities to improve and to compare my outcome to my average or a benchmark.

With Robotic-arm assisted surgery, we now mostly talk about: Semi-active systems. These utilise handheld or controlled, forced robotic assisted devices, e.g., MAKO or Rosa. Or we use navigation during surgery with techniques like Navio. But from a DATA point of view we might need to look to the more significant offering of Computer Assisted Surgery and see the DATA possibilities also in the smaller solutions like Patient Specific Instrumentation.

Yes, I also keep working on improving ‘regular’ aspects in Fast track surgery or a surgical approach. But I also want to use the opportunities that we have in this new era we live in. I hope you all join me in shaping orthopedic surgery into this new and exciting era. I want to finish with a big thanks to all the excellent colleagues I worked with over the last years, and believe that together we will keep on working within EKA in this passionate way!
EKA at ESSKA Speciality Days in Warsaw 2021

Pawel Skowronek and Reha Tandogan
Scientific Chairs, ESSKA-EKA Speciality Days 2021

The next ESSKA Speciality Days will be held in Warsaw, the capital of Poland, and from 3 - 4 September 2021 will make Warsaw the capital of degenerative knee surgery. We are looking forward to welcoming you to Warsaw, a city with an incredible history and culture. This will be a great opportunity for all the participants to visit Warsaw and see what central Poland has to offer. Warsaw is a city with a very tumultuous history, full of contrasts, questions and surprises. It connects various cultures and nationalities that have lived in harmony for centuries. Once called the 'Paris of the East', this was one of Europe’s most beautiful cities. Over the recent decades, Warsaw has rebuilt itself, rising up from the ashes and emerging once again as one of Europe's great cities. Some of the outstanding figures in Polish history, who contributed to breakthroughs in science or with marvellous achievements in different fields of human activity were either born or worked in this city. Astronomer Nicolaus Copernicus, who “stopped the Sun to move the Earth” was a resident. Polish composer and virtuoso pianist, the great master of romantic music who was called ‘the poet of the piano’ Fryderyk Chopin lived in Warsaw. From May to September in the Royal Łazienki Park you can experience the best moments with Fryderyk Chopin's music. Saint John Paul II was the first non-Italian pope after 455 years, and the first ever of Slavic origins. He worked hard to thwart the Soviet socialist regime, and used his global influence to promote the recognition of human rights worldwide. Mary Curie (Maria Skłodowska-Curie), the scientist who discovered polonium and radium, was born in Warsaw. She was the first woman to be awarded a Nobel Prize, the first person and only woman to be awarded two Nobel Prizes, and the only person to win a Nobel Prize in two different sciences.

The spirits of these people, this beautiful and welcoming place makes the perfect location for the meeting of passionate surgeons. Colleagues not only from Europe but from all over the globe will have a great opportunity to catch up with the latest developments in degenerative knee surgery, meet old friends and make some new ones in a great scientific meeting.
The main theme of the EKA programme for the 2021 Speciality Days will be: 'Intraoperative and Perioperative Complications in Degenerative Knee Surgery'. The EKA programme will shed light on pertinent questions such as how to avoid complications and deal with them when they do arise.

The programme will cover complications and pitfalls in unicompartmental arthroplasty, osteotomies around the knee, primary and revision total knee replacement. Experts in the field will discuss their solutions to difficult problems. Hot topic debates featuring controversial topics in arthroplasty will take place in dedicated areas during the breaks, entertaining and teaching at the same time. There will be ample time for free papers and discussions.

Knee surgeons like to talk about their triumphs. The congresses, meetings and journals are packed with an overwhelming number of success stories. Everyone wants to be recognized as the greatest surgeon in the room! However, this can lead to an under-representation of the full gamut of outcomes, from successful to not so successful. That’s why “My Worst Case” sessions provide the best opportunities for learning from the defeats and failures of others. Only those who have failed to learn from the past make the same mistakes time and again.

It is our great pleasure and privilege to invite you to the ESSKA Speciality Days in Warsaw 2021 - it's one not to miss.

Come and join this unique scientific and social experience!

Registration for ESSKA Speciality Days 2021 will open in November 2020.

The Abstract Submission System will open on 29 October 2020.
Medial Pivot in TKA

Bruno Violante and Pier Francesco Indelli
EKA Secretary and EKA International Societies Ambassador

Medial pivot or medially congruent total knee implants are receiving special attention from the adult reconstruction orthopaedic community.

As European surgeons, we should be proud of our heritage: historically, the first medial pivot implants were designed in Europe, thanks to the excellent work of Michael Freeman, a real pioneer, in the late 1980’s. Michael’s idea was to design knee replacements which better reproduced the physiological kinematics of the normal knee, achieving a pivoting kinematic during early to late ROM, confining the anterior sliding movement and ultimately avoiding the paradoxical anterior roll back of the femoral condyles during deep flexion. In the last five years, medially congruent (having a highly congruent medial compartment and a lateral compartment characterized by less conformity) or real “ball-in-socket” implants (having a fully congruent medial articulation with a stable contact point independent from the degrees of flexion) have been used worldwide, receiving approval and ultimately achieving high success rate in many patients reported outcomes (PROMs) studies.

These designs promise to be the perfect match for another European-borne concept which is now spreading in the entire orthopaedic community around the world: kinematic alignment (KA). In recent EKA meeting, few of our members presented their successful experience on combining medial pivot designs with KA. As always, EKA has been an innovator in presenting new techniques and technologies which ultimately benefit our patients.

Still debating how closely the EKA must be followed, recent studies seems to point towards the so-called “Restricted Kinematic Alignment” which is less extreme and closer to the anatomical alignment concept as it defines safe zones. Debates are on the use of a medial pivot TKA design in patients with a constitutional preoperative valgus alignment, in my own opinion it needs more studies and discussion about the pros and cons of each change in technique.

What is your opinion on medial pivoting total knee arthroplasty?
Please send us email to discuss these topics, which can then initiate a discussion among us EKA members (eka@esska.org).

References:


4) Indelli, P.F., Morello, F., Ghirardelli, S. et al. No clinical differences at the 2-year follow-up between single radius and J-curve medial pivot total knee arthroplasty in the treatment of neutral
https://doi.org/10.1007/s00167-020-05854-4


Robotics in Knee Arthroplasty

Nanne Kort and Bruno Violante
EKA Past Chairman and EKA Secretary

In 1985 the first brain needle biopsy was performed with the Programmable Universal Manipulation Arm (PUMA) 200. This is seen as the first documented robot-assisted surgical procedure of a system that used computed tomography (CT) scans to define the trajectory. [1]

Robotic assisted surgery was introduced in orthopaedic surgery in 1992 but only in the last decade the orthopaedic community starting to feel the robotic technology as an essential tool to enhance the overall TKA precision with the target to match as close as possible the postoperative patient expectations. In 2013, Stryker’s acquisition of MAKO, one of the major orthopedic implant company got involved in robotics, after which other companies as Smith+Nephew acquisition of Navio in 2016, like Zimmer Biomet, acquisition of Medtech in 2016 followed. [2] These acquisitions accelerated the development and its more widespread use.

Future healthcare projections consider that the global population has doubled over the past 45 years. In parallel, during this period, we have recognized a huge technological advancement, and the curve is sharply growing.

Robotics, digitalization and artificial intelligence (AI) are increasingly translated into the medical field.

As published by Parsley et al. more than 13, 6 billion US Dollars are estimated to be spent by 2019 on surgical robotics. [3] Tractica reported that healthcare robotic shipments would surpass 10,000 units annually by 2021.[4].

How will surgical robotics change our medical world? Are robots only more accurate than humans, or are there more potential advantages? The traditional operating room requires tremendous logistics such as orange and management of material, instrumentation systems and trays. It requires the preparation and set up time, for cleaning and resterilization, and moving the patient in and out of the OR. In this traditional way of working little insight is available on efficiency.

The robotic assisted TKA surgery promises a reduction of storage and handling of instrumentation trays. A Reduction in surgical time is debatable, but not seen in most cases, though. However, process data on the surgery will give more clarity on this in the forthcoming years. Surgical maps are computer-generated preoperatively to achieve optimal alignment, implant sizing and correct placement with the possibility to review and modify the surgical plan before starting the procedure. The workflow allows an improved implant positioning in three planes considering an optimal fit with the soft
tissues. At this moment, there is little evidence on how this enhanced accuracy reflects in the clinical outcome of the patient.

Different types of robots are used in robotic surgery. These can be classified into three main categories: passive, semiactive and active systems.

Passive systems complete only a part of the surgical procedure under the continuous and direct control of the surgeon completely on the other side of the spectrum are the active systems which perform a task-independent of any surgeon involvement. Semiactive are the most popular systems. In semiactive systems, robots constrain surgical manipulation through feedback to restrict what can be done surgically. [5]. In these semiactive systems, the robotic-arm guides the saw blade or burr and the surgeon has haptic feedback to increase control, or the robotic arm guides the saw guide, and the surgeon uses the traditional saw. All the systems require an external platform and a “preapproved plan” on which the surgical procedure is based. The imaged based systems usually rely on a preoperative CT or MRI. The imageless system is based on the registration of the patients’ anatomy after the surgical exposure to create a virtual model able to determine the component size, position, alignment and interaction with soft tissues. [6-9].

The pertinent question still is: Why robotics in orthopaedic surgery? What is your opinion on robotic surgery? How will the surgical world look like in five years? Please send the EKA focus group your emails to discuss these topics, which can then initiate a discussion among us EKA members (eka@esska.org).

References:


5) J. H. Lonner, MD, V.M.Moretti MD; The Evolution of Image-Free Robotic Assistance in Unicompartmental Knee Arthroplasty, JOA 2016

6) B.S.Parsley MD; Robotics in Orthopaedics: A Brave New World, JOA 2018.

EKA on Social Media

Riccardo Compagnoni and Trifon Totlis
EKA “Social media” team

Keep in touch with EKA: all the ways to be up-to-date

“Social media” is a way for people to communicate and interact online. This aspect is of particular interest for a scientific society as EKA, helping to share events, on-line courses, and topics of interest on knee surgery. Social media brings both opportunity to grow lasting and scalable relationships with the association’s member base and responsibility to provide relevant content for the members to read, watch, and engage.

EKA is active with a Facebook and Twitter account. The Facebook account was launched in February 2019, has more than 1,200-page followers and more than 140 posts have been published. The real advantage of Facebook is that it’s a real-time social networking site. This makes it one of the best sources to stay updated with the latest news and information. Major news usually goes viral on Facebook, and most societies use it to announce important things regarding their activities. The scope of the social media team is to catch the most interesting news and share them with the EKA community. (EKA Facebook account)

The EKA Twitter account was just launched in September 2020 and has been a new opportunity for interconnections with other relevant societies in the same field and re-tweet updates from scientific orthopedic journals. The platform allows direct two-way communication with its members, using hashtags can help the society to reach an audience interested in a particular topic and has a large user base.

Both the EKA Facebook and Twitter accounts are active in sharing with the members many aspects of the social activities:

- Calls to Join ESSKA-EKA (membership benefits and info).
- Announcements and calls for upcoming ESSKA and ESSKA-EKA activities.
- Polls and surveys.
- Announcements and calls for upcoming activities of other parties with ESSKA-EKA involvement.
- EKA strategic plans messages to members.
- ESSKA newsletter and “In Touch With EKA”.
- Photos and scientific info from past ESSKA-EKA activities or ESSKA-EKA involvement in other parties activities.
- Synopsis of innovative – important evidence from new publications on the degenerative knee.
The plans will include activities to introduce the new members, statements on EKA focus groups and discussion of interesting clinical cases.

We very much look forward to your participation and involvement in keeping our virtual presence on both Twitter and Facebook alive.

Please feel at home and have fun in your very own EKA family!
Keeping in Touch with Members: ESSKA Webinars

Reha Tandogan, Enrique Gomez Barrena and Geert Meermans
EKA Vice-Chairman and EKA Education Team

In the spirit of keeping up with the educational goals of ESSKA during these times when travel is restricted and face to face meetings are postponed, the ESSKA Academy, in collaboration with the sections has decided to launch the ESSKA webinars on October 2020. These educational activities will be in the form of “Highlight Webinars” which focus on a hot topic and “Core Curriculum Webinars” focusing on an essential topic in relation to the ESSKA core curriculum. CME credits will be available to all attendees and faculty.

We are delighted to inform you that all the webinars proposed by EKA were approved by the ESSKA Board. The first EKA Highlight Webinar will take place on 28 October 2020 at 18:00 CET with the collaboration of the Osteotomy Committee. The programme of the first webinar is as follows:
Joint Preservation in the Middle-Aged Arthritic Knee (Moderators: Matt Dawson-Reha Tandogan)

**Date/Time: Wednesday 28 October, 18:00-19:30 CET**

- Combined ACL reconstruction and proximal tibial osteotomy: **Steffen Schroeter**
- Meniscal replacement: Where are we in 2020? **Sven Scheffler**
- Cartilage regeneration for localized OA: Does it work? **Leela Byant**
- Stem cells for OA: Fact or fiction? **Phillip Niemeyer**
- Case presentations **Konrad Slynarski**
- Discussion

The tentative programme of the webinars for 2021 is listed below:

<table>
<thead>
<tr>
<th>Date</th>
<th>Type of webinar</th>
<th>Topic</th>
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<tbody>
<tr>
<td>10 February 2021</td>
<td>Core Curriculum</td>
<td>Periprosthetic Infection in TKA: What is new?</td>
</tr>
<tr>
<td>10 March 2021</td>
<td>Core Curriculum</td>
<td>Treatment Options in Patello-Femoral Arthritis</td>
</tr>
<tr>
<td>19 May 2021</td>
<td>Highlight</td>
<td>Osteotomy topic to be chosen from 2021 ESSKA Congress Programme</td>
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<tr>
<td>25 August 2021</td>
<td>Core Curriculum</td>
<td>Revision TKA - Pearls to Ensure a Successful Outcome (with ESSKA Polish Affiliated Society)</td>
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<tr>
<td>29 September 2021</td>
<td>Highlight</td>
<td>Speciality Days Hot topic debate - EKA</td>
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<tr>
<td>10 November 2021</td>
<td>Core Curriculum</td>
<td>Osteotomy topic from ESSKA Speciality Days</td>
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We would like to invite you all to participate in and contribute to these exciting online events. Please feel free to contact the EKA Board (**eka@esska.org**) if you would like to be a part of these or future webinars.
EKA Membership

Octav Russu
EKA Membership

What makes a group of friends happy? First of all, they have to be friends, which means sharing common values, common interests, trust, sharing good moments together, lots of common subjects to discuss, sharing knowledge together…

Here, at EKA, we can achieve all of these needs. EKA is a prominent section of ESSKA, which covers all aspects in degenerative knee, with top world experts in this field, in which these topics can be discussed in an untroubled, at ease, smiling manner, without lowering any scientific standards. In Europe, we have a long tradition of quality-of-life research and I am sure that if we apply any scientific quality-of-life scores on EKA members, we will be surprised how much our life will improve after being part of this beautiful group. Growing number of EKA members is a good, reliable indicator that orthopods all over Europe (and not only) can meet, talk, share ideas, scientifical findings under common values, under the red flag of EKA :)

We look forward to meet you in our next meetings, hopefully in Milan, at the 19th ESSKA Congress, from 11-14 May and at the ESSKA Speciality Days, 3-4 September 2021 in Warsaw. We will aim to achieve all our goals, as stated by our Chairman:

- advancing knowledge of degenerative knee pathology and knee arthroplasty;
- providing a milieu for improving both knowledge and treatment of arthritic knee;
- creating best environment for research;
- promoting professional standards, and thereby ensure the best care for our patients.
The COVID-19 pandemic is hitting us hard in multiple ways, hurting our families and activities, shattering our concept of free movement and our ways to look at this world. Many of us are directly or indirectly impacted. This “In Touch With EKA” is an update on what we are doing as EKA, keeping your safety on top of our minds.

Stay safe,

Your EKA Board