This is the second issue of the WSRM Newsletter. The newsletter was originated by the Immediate Past President, Prof. Soucacos, to easily exchange new ideas and experiences among the members of WSRM. This time, to activate publication of the newsletter, three editors, Prof. Soucacos, Dr. David Chang, and myself, will work on each biannual issue as Editors-in-Chief.

One of the present projects of WSRM is to organize the international federation of societies of reconstructive microsurgery, and for this purpose, we should know the present states of each regional society of reconstructive microsurgery. We welcome not only liaisons of each country, but also all members to submit your present state of microsurgery in your country.

The other important purpose of the newsletter is to repost online your updated scientific experiences including microsurgical techniques and cases. I am dreaming that this newsletter will be a Pubmed listed online journal. I recommend you and your colleagues to submit your articles.

Kazuteru Doi, MD, PhD
Editor-in-Chief, President
Robotic Procedures in Reconstructive Microsurgery

Jesse Creed Selber, M.D., M.P.H.
Assistant Professor
Adjunct Director of Clinical Research
Department of Plastic Surgery
M.D. Anderson Cancer Center

Introduction

Robotic Surgery has begun to dominate minimally invasive applications in the fields of urology, gynecology, general surgery and ENT. Although a relative late-comer to microsurgery, the robot has features that make it a versatile reconstructive instrument.

The surgical robot consists of two integrated sub-systems: a surgeon console and a patient side cart. While seated at the console, the surgeon controls the endoscopic instruments and endoscope using two small hand operated mechanisms residing within the console (figure 1). The instruments are reusable and come in a variety of shapes and sizes for different purposes, and are held by canulas at the ends of three robotic arms. The instruments themselves are capable of supination, pronation, flexion and extension, and grasping, much like the human hand, making them considerably more agile than standard endoscopic instrumentation. The endoscope itself provides two independent images that are fused to form a 3 dimensional view at the console, and also provides a conduit for the light source.

Trans-oral robotic resections, can provide the benefits of locoregional control without the morbidity of mandibulotomy or high dose radiation. Many of these tumors can be removed completely trans-orally. A mouth retractor is used to set the inter-dental opening, two robotic arms and the endoscope are placed in the mouth, converging on the target pharyngeal anatomy, and the tumor is resected with the surgeon sitting at the robotic console (figure 2).

Occasionally, these tumors are too large for a complete trans-oral resection, and in these cases a small lateral pharyngotomy can be added for additional exposure.

In its initial use, the standard following TORS resections was that oropharyngeal defects were allowed to heal by secondary intention. This approach was reliable for smaller tumors, but not in cases where a significant anatomic defect is created. These cases require soft tissue reconstruction. The reconstructive challenge created by these minimally invasive resections is that the cylinder of the oropharynx remains almost entirely closed, severely restricting access to oropharyngeal anatomy.

In the following, I will describe the procedures that are currently being performed robotically in the field of reconstructive microsurgery, which include Trans Oral Robotic Surgery for use in head and neck reconstruction, robotic microvascular anastomoses, and minimal access muscle harvest.

Trans Oral Robotic Reconstruction of the Oropharynx

Trans Oral Robotic Surgery (TORS) was developed to resect tumors in the oropharynx without splitting the mandible, and without high doses of chemoradiation therapy. TORS has been adopted at multiple other centers, and was FDA approved in 2009. Functional and oncologic outcomes are currently being investigated in the setting of prospective clinical trials at the University of Pennsylvania, the Mayo Clinics, Mount Sinai Medical Center, the University of Alabama, and the University of Texas M.D. Anderson Cancer.

For these types of defects, trans-oral inset of a free flap or local flap using robotic assistance has been shown to be both feasible and effective. By taking this approach, the plastic surgeon can provide the reconstructive support for the head and neck surgeon to remove larger and more complex tumors robotically that would be very difficult to reconstruct through traditional methods. The author has used such an approach in 20 cases to date, employing a combination of free flaps (ALTs, RFFs, UAPs) and local...
flaps (FAMM flaps, buccal flaps and pharyngeal flaps). The robot has allowed preservation of the minimally invasive approach in all cases.

Robotic Microvascular Anastomosis
Robotic microvascular anastomosis has been performed in four cases of head and neck reconstruction. Arterial anastomosis was performed in each case using two robotic micro-needle drivers and a bedside assistant (figure 3). There were no hand thrown sutures required in any of the cases, and there were no thrombotic events.

There are advantages and disadvantages to robotic microvascular anastomosis. The main advantage is precision. The robot is capable of up to 5 to 1 motion scaling, meaning the surgeon moves the hand-operated mechanism 5 cms, and the robotic arms respond by moving 1 cm. Another advantage is 100% tremor elimination. The combination of motion scaling and tremor elimination greatly enhances precision, which is the foundation of microsurgery. Another advantage is surgeon comfort. We often ignored this to our own detriment, but it is very important over the life of a microsurgeon. The robotic console is very ergonomic and comfortable.

The main disadvantage is the lack of haptic or tactile feedback, although I thought this would be a much bigger problem than it has turned out to be. In microsurgery, much of what we think we feel, we actually see and our brains are supplying the illusion of sensation. That being said, the robot is very strong, and one has to pay close attention to visual cues, particularly when it comes to setting down the knot. It is important to maintain equal slack in both ends of the suture, try to minimize movement of the anastomosis while tying (as this represents a differential in applied tension), and only pull until the air in the knot disappears. These measures minimize vessel trauma. Another disadvantage is the instrumentation. The currently available micro instruments are called Black Diamond Micro-needle Drivers. These instruments are poorly designed for microsurgery. The tips are too broad and flat, and the surface is coated with diamond dust, which has a tendency to cut the suture. I’ve helped the company to design instruments more like the ones to which we’re accustomed and they’re up for FDA approval.

The robotic interface has supplied the necessary exposure and picture clarity through high resolution, three dimensional optics, and the necessary precision instrumentation through wristed motion at the instrument tips to accomplish both muscle and pedicle dissection. For this reason, robotic muscle harvest, although still in its infancy, holds excellent promise in reducing donor site morbidity for these common reconstructive procedures.

At this time, I have performed 5 robotic muscle flap harvests. The set up is intraperitoneal for the rectus harvest, and subcutaneous for the latissimus dorsi harvest (figure 4). In each case, three ports are used in combination with a small incision, either in the pubic hairline or axilla through which to remove the flap (figure 5). All harvests have been successful, without the need to convert to an open procedure.

References
Hosting Future WSRM Meetings

The World Society for Reconstructive Microsurgery (WSRM) is aimed “to stimulate and advance knowledge of the science and art of Microsurgery” and aims to “provide an international forum for the exchange of ideas”. The WSRM Congress brings together practitioners and scientists to build and develop thriving scientific societies, health care agencies and academic institutions in all parts of the world and to integrate their knowledge toward a common language of accepted standards and practice in reconstructive microsurgery. During the WSRM Congress, members of the international microsurgery community have the opportunity to share and learn about new research and best practices in the field. The Host organization shall benefit from global visibility and recognition as a key global player in the development of reconstructive microsurgery. If you are interested please click here.

WSRM Endorsement Microsurgery Seminars, Meetings & Workshops Worldwide

WSRM is making an effort to show its support of the various microsurgery activities and meetings that take place around the world. Please click here to view the endorsement guidelines. A formal request must be submitted addressing the guidelines stated and your qualifications. The WSRM WILL NOT endorse a meeting within the same region within one year of the biennial congress. The WSRM will ONLY endorse national meetings.
**President’s View**

Kazuteru Doi, MD, PhD, President of WSRM

It is my great pleasure to be approved as the president and I would like to express my sincere thanks. I would like to ask all members of the WSRM to support me by your active contribution to the WSRM.

Basically, I would like to follow the former president, Prof. Soucacos and the Council members. Especially, I would like to focus on the following items for the next two years.

1. **Increase the number of WSRM active members**

The present number of active members is 234 before the Helsinki congress and the number of members in the organization is 642. The number of active members is too few to continue the international activities as the representative international society of reconstructive microsurgery. I will follow the previous President’s and Council members’ effort to increase members, and I will look for further solutions to this problem.

a. Active Information of WSRM by Newsletter

As we continue through the next year the WSRM should do a bi-annual newsletter (Fall and Spring) as well as keep communication open with the liaison of the representative countries. The secretary, Ms. Krista Greco, has received some requests during the meeting that members would like to have updated news on what members are doing in research and clinics posted on the website in the “members only” section to keep a pulse on what the WSRM members are doing and share their experiences as a network of members. I think this is a good idea and should be seen as a member benefit. I want to discuss this during 2011~2013 Council Meeting.

b. Privilege of Young Surgeons

The Candidate Members (residents and fellows) must be given the financial privilege to encourage them to join the membership by reducing their annual fee to US$ 100 and the registration fee of the congress for the candidate members should also be reduced to different cost from the non-members.

c. Firm relationship between WSRM and the regional societies of reconstructive microsurgery

Considering the number of active members of each regional society, the number and ration of active members from the individual countries is too different, and especially the active members of European countries are too small. The WSRM should have solid and cordial connection to these societies.

d. Workshop and Seminar organized by the WSRM.

Not only the endorsement of the WSRM to the individual society will be approved, but also we should organize workshops and seminars sponsored by the WSRM, which will be held as pre- or post-congress meeting or separately from the biennial congress.

2. **International Federation of Reconstructive Microsurgery**

I know well the history of the WSRM and this society is not consisting of the representatives of each regional society, but the personal memberships. However, the EFSM claimed that the Council member should be selected equally for all regional societies. In order to develop this society in a more world-wide manner, we should accept the opinions of these societies. First of all, how to select the Council member and representatives from the EFSM, ASRM, South America, and Asia, should be clearly described in the bylaw. Secondly, we should ask and call to each regional society to send their representative to the WSRM. The present liaisons have been nominated by the WSRM and not by each regional society. The present liaisons may not represent their own societies, and this may produce misunderstanding of our society, the WSRM. If the WSRM is the international federation, then each country should contribute to the WSRM and increase the number of active members.

**Executive Council Reports**

The latest Executive Council meetings were held on June 29th and July 2nd, 2011 in Helsinki. The summary of the Council meetings is followed,

I. **The Immediate Past President**

(Forthcoming Congress Reports)

**6th Congress of WSRM in Helsinki, 2011** – Erkki Tukiainen, MD; Susanna Kauhanen, MD (Finland)

The 6th Congress of the WSRM was held in Helsinki from June 29 to July 2, 2011, and had completed with big success by 759 participants. On behalf of all members of the WSRM, I wish to express our sincere thanks to all members of the Organizing Committee of the 6th Congress, who have actively contributed to this congress to make it such a big success.

2011 Post Congress/Bucharest – Alexandru Georgescu, MD (Romania)

Dr. Georgescu informed the Council that the meeting was a success and had 85 attendees of which 17 countries were represented. The program included 11 panels on major topics in microsurgery, 3 paper presentation sessions and 70 presentations were given.
2013 World Congress Update –
David Chang, MD (USA)
presented on behalf of Robert Walton, MD (USA)

The meeting theme is “Achieving Normal: The Ultimate Paradigm in Reconstructive Surgery”. On Thursday, July 11th an ASRM pre-symposium is tentatively scheduled and will be led by Michael Neumeister, MD. Friday, July 12th through Sunday, July 14th is dedicated to the WSRM programming. Dr. Walton has received correspondence from several members expressing their interest to serve on the Program Committee. The goal is to have a balance of Americans and international members on the Program Committee. Over the next 3 months the committee will be decided. The following deadlines have been set –
Abstract Submission: September 2012-January 2013
Registration Opens: January 2013
Housing Registration Opens: January 2013

Website www.wsrm2013.org is now available.

2015 World Congress Update –
Ashok Gupta, MD (India)

Dr. Gupta confirmed with the Council that the 2015 World Congress will be held between March 19th -22nd, 2015 in Mumbai, India. The focus will be on pediatric microsurgery, evolving technology and CTA. Currently, the committee is proposing to have a pre-congress program with 4 live surgery sessions for which there would be a separate registration set at US$75-US$200.

II. Presidents Report
Endorsement of WSRM for Regional Scientific Meeting

The endorsement guidelines as submitted was approved, and the societies interested in the endorsement of WSRM should understand their scientific conferences including congress, symposium, workshop and so on should satisfy the criteria of the Endorsement Guidelines. (If you are interested in the endorsement of WSRM, please, contact the central office)

Dr. Fu Chan Wei’s meeting at Chang Gung Memorial Hospital in Taiwan and the 2012 Congress of Turkish Society for Reconstructive Microsurgery have been endorsed by the WSRM.

Invitation of Member-at-Large for Regional Societies

The European Federation of Societies of Microsurgery (EFSM), the American Society of Reconstructive Microsurgery (ASRM) can nominate their delegates for member-at-large of executive council and South American and Asian countries were asked to organize their regional federations of societies of reconstructive microsurgery and propose their delegates for member-at-large of the executive council.

Journal of Reconstructive Microsurgery

The Council reviewed the terms agreed upon by the publisher of JRM Thieme and the WSRM for the inclusion of the JRM online subscription with the payment of WSRM membership dues.

III. Secretary General Report – David Chang, MD

Dr. David Chang reported the current financial status of the WSRM as of May 31, 2011. The total revenue posted is US$21,850 and expenses total US$25,994. Dr. Chang informed the Council of the estimated budget for the year predicting a net profit of US$1,719 with the anticipation of a donation being made from the Helsinki organizing committee from the meeting’s proceeds. It was noted as a fact that the WSRM needs to increase dues to $200 which will be presented during the business meeting. Dr. Chang reported that 223 out of 602 members billed have paid. This has increased from previous years.

IV. Bylaws Committee Report –
Milan Stevanovic, MD

Bylaws changes accepted as follows
This change was not approved
Section 3: Active Members (Researchers)
These Active Members shall be Ph.D.s or other researchers, actively engaged in microsurgical investigation. As long as they are in good standing, they may be involved in committees pertaining to microsurgical research.
Section 7: Candidate Members
Candidate members will have a reduced annual fee, as well as, reduction in meeting registration fees.

WSRM Regional Representation
1- Europe - Nomination of one member by the EFSM which would be automatically accepted by WSRM
2- North America - Nomination of one member by ASRM which would be automatically accepted by WSRM
3- South America - as it does not have a regional federation, the WSRM nominating committee would nominate, and be voted on by the WSRM membership.
4- Asia - as it does not have a regional federation, the WSRM nominating committee would nominate, and be voted on by the WSRM membership.
These members have been given voting privileges, which has been approved.
As new business of the council, we will encourage regional society of South America and Asian countries to built their
representative society and nominate.

V. Reports and Letters from Regional Societies or Liaisons of Reconstructive Microsurgery.

I invited all regional liaisons of WSRM to introduce their regional societies of reconstructive microsurgery and send their representatives. I received their replies as below,

Korean Society for Microsurgery

Dear Dr Doi:
First of all, I congratulate you as President of WSRM. In Korea, we have 350 members of society named “Korean society for Microsurgery” founded in 1981.

Name of President:
Hyun Un Han, M.D.
webmaster@handcli.com

Name of Chairman of Boards:
Seok Whan Song, M.D.
sw.song@catholic.ac.kr

Secretary:
Il Jung Park , M.D.
jikocmc@naver.com

www.microsurgery.or.kr

Thanks,
Duke Whan Chung, M.D.
Liaison, Korea, WSRM

Swedish Society for Reconstructive Microsurgery

Dear Kazuteru Doi,
Sweden has since last year its own microsurgery society, Swedish Society for Reconstructive Microsurgery. The President of the society is Karl Malm and his address is the official address for the society.

Karl Malm, M.D, Ph.D.
Chairman of Swedish Society for
Reconstructive Microsurgery
Senior Microsurgery Consultant

Department of Plastic and Reconstructive Surgery
Skåne University Hospital
205 02 Malmö, Sweden
karl.malm@med.lu.se

The Secretary is Jesper Bergdahl and his e-mail is jesper_bergdahl@hotmail.com.

I am the WSRM Country Liaisons since I have been a member since the start at Taipei and I am a senior microsurgeon in the country. Our society will certainly be a member of WSRM.

If you have any further questions please let me know.
Sincerely,
Hans Mark MD, PhD
Department of Plastic Surgery
Sahlgrenska University Hospital
413 45 Göteborg
Sweden
hans.mark@vgregion.se

Swiss

Dear Colleague,
Switzerland doesn’t have a microsurgical society. The German speaking countries have a group called DAM: www.dam-png.org/

Sincerely,
Prof. Andrej Banič MD, PhD
Department of Plastic and Hand Surgery
University Hospital Inselspital

Swiss

Dear Colleague,
Switzerland doesn’t have a microsurgical society. The German speaking countries have a group called DAM: www.dam-png.org/

Sincerely,
Prof. Andrej Banič MD, PhD
Department of Plastic and Hand Surgery
University Hospital Inselspital

Japanese Society of Reconstructive Microsurgery

Dear Kazuteru Doi, MD, PhD, President, The World Society of Reconstructive Microsurgery

We appreciate your effort to establish the genuine international society of reconstructive surgery. Yet, I would like you to know that we are quite confused by the fact that there is currently no single authority to organize reconstructive microsurgeons in the world.

We keenly hope to have a democratic single society of reconstructive surgery to unite all microsurgeons in the world. We believe that it would be a great pleasure for a regional societies to be included in the WSRM Executive Council and, in the near future, to be integrated into the International Federation of Reconstructive Microsurgery as you propose. We will accept the invitation from the World Society of Reconstructive Microsurgery and appoint a formal liaison to attend the council meetings as representatives of our council.

We hope this will give you a satisfaction.

Sincerely yours,
Kazuki Ueda, MD., PhD
President
The Japanese Society of Reconstructive Microsurgery
Dear Prof. Doi,

Sorry for the delay in answering to your mail but I was out of my office for a period.

Thank you for the official invitation to EFSM (European Federation of Societies for Microsurgery) to join WSRM. This is a great opportunity of joining expertise in our field and all the European members will be happy to be inside WSRM also as recognized EFSM members. Actually, in our last Council Meeting, we decided that the delegate representing EFSM inside WSRM Council Meeting with right of vote will be the General Secretary (actually it’s me). The General Secretary in our Federation lasts 4 years.

As far the invitation of other Societies inside some EFSM Congresses, naming then the Meeting as International Meeting, it is not the will of having another international society. We absolutely think that there are already too many Societies and we really feel that WSRM could represent all international members, especially with the bylaws changes which you just approved and that makes WSRM even more representative of microsurgeons in any country in the world. The invitation of some extra-european society is just the intention of enriching our EFSM meeting with high level international scientific contributions.

Thanks again for your kind letter.

Looking forward to hearing from you and meeting you soon.

Sincerely
Bruno Battiston
Secretary of EFSM

Dear Dr. Doi,

May I congratulate you on your election to the Presidency of the World Society of Reconstructive Microsurgery. It is recognition of your immense contribution to the field of Reconstructive Microsurgery and how you have improved the lives of many patients and a teacher to many reconstructive surgeons. I have learned many things while I was with you for more than a year in 1996. Since the time of the late Dr David Khoo, you have been a good friend to Singapore’s Hand Surgery community.

I am honored that you considered having the Asian Federation of Reconstructive Microsurgery Meeting in Singapore. We will be more than happy to organize it; if given the opportunity. However presently in Singapore, there is no Singapore Society of Reconstructive Microsurgery. Reconstructive surgeons are usually plastic surgeon or hand surgeon and will belong to either Singapore Society of Plastic Surgeons (SAPS) or Singapore Society for Hand Surgery (SSHS). Currently the President of SAPS is Dr Vincent Yeow (Vincent.Yeow.KL@kkh.com.sg) and the President of SSHS is Dr Alphonsus Chong (alfchong@gmail.com). I have spoken to both Presidents and they have expressed their interest in this. Ideally, a new Society of Reconstructive Microsurgery from members of both Societies will organize the Meeting or, secondly, a Chapter of Reconstructive Microsurgery, made up of similar members or it can also be co-organized by the 2 Societies. I have copied this letter to the two Presidents so that you may contact them directly for further discussion. I will be happy to liaise with the relevant people should you require.

Best regards
Soo Heong

Dear Prof. Doi,

Congratulations for being elected as the new President of the WSRM. I am looking forward to being more involved in the WSRM activities. Presently, my country Malaysia does not have a society of reconstructive microsurgery. I am in the midst of organizing one. Although many of those I approached are interested to join, however, most do not fulfill the criteria set by the WSRM (i.e. microsurgical cases operated and scholarly contribution in microsurgical work). It will be very helpful for me if your can provide and guide me on the rule and regulation of the national society of reconstructive microsurgery that will be eligible to be part of the international federation.

With my best regards,
Prof Dr Ahmad Sukari Halim MD, FCCP
WSRM Country Liaisons (Malaysia)
**Invitation to WSRM 2013**

Dear friends and microsurgical colleagues,

Preparations are actively underway for the upcoming World Society for Reconstructive Microsurgery meeting in Chicago July 11-14, 2013. We have contracted with the Fairmont Hotel in Downtown Chicago as our official meeting headquarters. As the time for securing your reservation draws near, we will provide website hotel and meeting registration to facilitate travel planning.

Travel to Chicago is relatively unencumbered as Chicago’s O’Hare airport is the second busiest airport in the United States and connects directly to hubs in Europe, Asia, South America, Africa, and the Middle East. Transportation to and from the airport is facilitated by an array of options including taxi service, private limousines, charted buses, commercial vans, rental cars, and scheduled trains.

The Fairmont Hotel is a 4-star facility with superb guest accommodations and meeting venues. The Fairmont is centrally located in Downtown Chicago providing nearby access to world-class shopping on the ‘Magnificent Mile’, dining and entertainment. Just a few blocks from Lake Michigan’s shore, attendees will have direct access to the lakefront for exercising, sightseeing, and visiting Chicago’s famous beaches and lakeside attractions such as Oak Street Beach and Navy Pier. Summer will be in full swing during your stay, which means that Chicago’s weather will be near-perfect for enjoying its many outdoor summer-time sports events, concerts, and festivals. A great tourist destination, Chicago offers plenty of things to see and do for the whole family from boat rides to museums to architectural tours, sports venues, and more. Chicago lays claim to a large number of regional food specialties, all of which reflect the city’s ethnic and diverse cultural roots. Included among these are its nationally renowned deep-dish pizza, and the Chicago-style hot dog. A number of well-known chefs have restaurants in Chicago, including Charlie Trotter, Rick Tramonto, Grant Achatz, and Rick Bayless. In 2003, Chicago was named the country’s “most exceptional dining destination.” The city is home to 23 Michelin starred restaurants, including Alinea, Everest, Tru, and Next.

Meeting activities will kick-off on July 11, 2013 with a pre-meeting hosted by the American Society for Reconstructive Microsurgery. Chaired by Dr. Michael Neumeister, the ASRM day will feature panels, and invited lectures highlighting recent techniques and advances in complex reconstruction. The ASRM day will dovetail with the WSRM program to provide a comprehensive overview of what’s new and exciting in our field of endeavor.

Shortly following the ASRM Day Program, The WSRM will host its Opening Ceremonies with a special welcome from a noted Chicagoan! Afterwards, attendees are free to enjoy the Chicago nightlife.

The formal WSRM Scientific Program will commence on Friday July 12, 2013. Our Theme for 2013 is “Achieving Normal: The Ultimate Paradigm in Reconstructive Surgery”. The meeting will emphasize Aesthetic as an integral aspect of the reconstructive effort and highlight the restoration of animation, sensibility and motor functions. Selected panels will address cutting edge issues in complex reconstruction including translational research (stem cells, bioprosthetics, tissue engineering), the role of composite tissue allotransplantation in reconstruction, and ethical issues in reconstructive surgery. Lastly, we are planning live video surgery workshops given by internationally recognized masters to demonstrate flap dissection and operative technique.

On Saturday, July 13, WSRM will host a Gala Dinner for attendees at Chicago’s famous Field Museum, home to “Sue” the world’s largest and most complete skeleton of Tyrannosaurus Rex. Attendees will be able to experience the exhibits, visit with museum curators and enjoy live entertainment. Guests are promised an exciting and memorable evening.

Following consensus panels on achieving “normal” in reconstructive surgery, WSRM will conclude its 2013 meeting in the afternoon of Sunday July 14.

WSRM 2013 promises to be an outstanding meeting, so mark your calendars now for this important event. We all look forward to welcoming you to the “Windy City” by the lake.

Robert Walton, M.D., F.A.C.S.
SALVAGING AN AVULSION AMPUTATION OF THE HAND

Dr S Raja Sabapathy, Dr Hari Venkatramani
Ganga Hospital,
Coimbatore, India.
rajahand@vsnl.com, www.gangahospital.com

Complex avulsion amputation of the hand at the wrist level poses a tough challenge to the treating micro surgeon. The first thought being whether it is worth salvaging. Here we present a case explaining our current strategy and the decision making processes involved.

A 21 year old labourer sustained a near total avulsion amputation of the right hand at the level of his wrist when his hand was caught in rotating machinery. The hand was attached only by the long flexor tendons of the index, middle, ring and little fingers. There was deep friction burns in the dorsum of the hand with skin loss. There was total destruction of carpal bones and comminuted fractures of distal radius and ulna (Fig 1). The picture at the end of debridement is shown in (Fig 2). A decision to reattach was made on the basis that hand was structurally intact and it had potential for useful function.

Total carpectomy was done and comminuted fragments of the forearm bones were excised. The radius was arthrodesed to the base of the 3rd metacarpal with about 10cm of bone shortening. Plication of the flexor tendons was done and FPL could not be reconstructed. Median nerve was repaired and ECRB was used to power the finger extensors and ECRL was re-attached. The hand was revascularised by the repair of radial artery. A dorsal vein was re-attached to cephalic vein and the venae commitantes of the radial artery were anastomosed. Available soft tissues were adjusted to cover the anastomosed vessels. 72 hours later the raw area on the dorsum of the hand and the ulnar border was covered with a free gracilis muscle flap attached to the ulnar vessels. The ulnar nerve was also repaired at the same time.

15 months later the ECRL was used for the EPL. When reviewed at 18 months the patient had developed a 2PD of 8mm, partial recovery of intrinsic muscles and finger have regained powerful flexion. Patient is able to drive a vehicle, hold small objects and grip big objects. Patient is extremely happy with the outcome.

Salient Points:

1. When faced with such a massively injured proximal amputation, doubts could come as to whether it is worth salvaging. We feel that when the hand is structurally intact it is worth the effort.
The outcome in this patient and many studies reinforce that thought. (1,2,3)

2. However severe the injury may present on arrival, the decision to salvage or not is to be taken only after debridement and assessing the available resources and the possible outcome.

3. Creating a one bone forearm by the radius to radius fixation or arthodesis in a similar fashion helps the patient to retain pronation and supination.

4. Shortening up to 10 cm though obvious, will be acceptable to the patient provided satisfactory functional outcome is achieved. Shortening also enables end to end repair of the quality nerve ends and many times helps avoid vein grafts.

5. In such severe injuries, soft tissue defect may need to be addressed in spite of bone shortening. This is one indication where free flaps are definitely indicated and they could be attached to the vessel other than one which is used for revascularising the hand.

The protocol that we follow is that all avulsion amputation of the upper limb need to be given a chance for salvage provided there are no risks of systemic complications (4).

References

Legends of the photographs

Fig 1. The injury on arrival and the radiograph

Fig 2. Post debridement picture, result after arthrodesis and revascularisation.

Fig 3. Gracilis free flap to cover the circumferential defect of the wrist

Fig 4. 18 months follow up showing good pronation and supination, ability to hold 2 Kg weights
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Membership News

WSRM Committee Roster 2011-2013

This is official notification to the membership of the members that have been appointed to serve in the standard committees of the WSRM. Please help us applaud those members that have volunteered their time to serve on a committee to better the organization.

Scientific Program Committee
Robert L. Walton, MD, Chairman, USA
Members to be appointed by Dr. Walton
TBD
Ex-Officio: Kazuteru Doi, MD, Japan

Membership Committee
L. Scott Levin, MD, Chairman, USA
Giorgio DeSantis, MD, Italy
Amresh Baliarsing, MD, India
Michael Miller, MD, USA
David Chiu, MD, USA

Nominating Committee
Panayotis Soucacos, MD, Chairman, Greece
Fuminori Kanaya, MD, Japan
Erkki Tukiainen, MD, Finland
Alexandru Georgescu, MD, Romania
Milan Stevanovic, MD, USA

Constitution and Bylaws Committee
Milan Stevanovic, MD, Chairman, USA
Catherine Vlastou, MD, Greece
Sang-Hyun Woo, MD, Korea

Ad Hoc Education Committee
Catherine Vlastou, MD, USA

Ad Hoc Industry Relations Committee
Panayotis Soucacos, MD, Greece

Ad Hoc Forward Planning Committee
Panayotis Soucacos, MD, Chairperson, Greece

Korean Society for Microsurgery

The Korean Society for Microsurgery welcomed national and international microsurgeons to a 30th anniversary congress and celebration on October 21, 2011 in Seoul, Korea. This international congress was organized by President Hyun Un Hand and Chairman Suk Hwan Song. There were five distinguished invited lectures from overseas that included the President of WSRM Kazuteru Doi, MD (Japan); Simmo K. Vilkkki, MD (Finland); Panuapun Songchoeran, MD (Thailand); Yixin Zhang, MD (China); Takumi Yamamoto, MD (Japan) as well as eight special lectures by former presidents of the society. The following former Presidents were recognized and participated in this celebration and congress:

Yoon Suk Chang; Jin Whan Kim; Soo Tae Kim; Hwan Young Chung; Kwang Suk Lee; Myung Chul Yoo; Soo Bong Han; Pung Tack Kim; Sang Soo Kim; Suk Joon Oh; Seung Goo Lee; Hyung Min Kim; Gyun Chul Tark; Duke Whan Chung; Woo Kyung Kim; Hee Chan Ahn and Kyung Moo Yang.
Utilizing your membership to its fullest!
In today’s cyber communication ability, economy and the world wide community endeavors utilizing websites and social media is very important. The WSRM web site has been built to function as a networking outlet and organization communication tool. As a member you have access to the discussion boards, online membership roster, upcoming meeting information, official WSRM newsletter and the ability to pay your membership dues on line. You do not have to log in to pay your dues.

What is the benefit of being a member of the WSRM?
In addition to the cyber benefits noted above each member receives reduced registration rates at the society meetings, volunteer leadership opportunities, liaison with multiple organizations, network with worldwide reconstructive surgeons and all dues paying members will receive a one year subscription to the e-online Journal of Reconstructive Microsurgery. To continue to receive these benefits and assist the organization and growing these benefits in the future, please keep your dues up to date.

As with all organizations you as a member are very important to us and we want to be sure we are able to communicate with you effectively. Validating the membership roster is a continual process. Please take a moment and go to http://wsrm.net/images/website_roster_08.pdf to view your contact information posted on the membership roster. If this information is incorrect, please send the revised information to jessicareynertson@isms.org. We appreciate you taking the time to do this.

Know someone who wants to become a member?
The application process is simple and applications can be obtained online and submitted via email, mail or fax to the Central Office. The ability to download a membership application to provide to you colleague is available and the WSRM is now doing continual enrollment. New members no longer have to wait two years to become a member of the organization.

The 2012 Journal of Reconstructive Microsurgery subscriptions for WSRM dues paying members is proudly supported by Synovis, MCA

Global Meetings Calendar 2012-2013
American Society for Reconstructive Microsurgery Annual Meeting January 14-17, 2012 Las Vegas, Nevada www.microsurg.org

American Society for Reconstructive Transplantation Clinical Update January 15, 2012 Las Vegas, Nevada www.a-s-r-t.com

2nd European Conference on Supra Microsurgery March 1-2, 2012 Barcelona, Spain www.barcelonaplasticsurgery.net

European Federation of Societies for Microsurgery May 24 – 26, 2012 Munchen, Germany www.eruaps@umcutrecht.nl

American Society for Reconstructive Transplantation 3rd Biennial Meeting November 15 – 17, 2012 Chicago, Illinois, USA www.a-s-r-t.com
# Mark Your Calendar

American Society for Reconstructive Microsurgery Annual Meeting  
January 12 – 15, 2013  
Naples, Florida  
www.microsurg.org

IPRAS  
February 24 – March 1, 2013  
Santiago, Chile  
maria.petsa@zita-congress.gr

World Society for Reconstructive Microsurgery World Congress 2013  
July 12-14, 2013  
Chicago, Illinois, USA  
http://www.wsrm2013.org

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# Executive Council

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<th>Role</th>
<th>Name</th>
<th>Country</th>
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<tbody>
<tr>
<td>President</td>
<td>Kazuteru Doi, MD</td>
<td>Japan</td>
<td><a href="mailto:k.doi@ogoridaichi.jp">k.doi@ogoridaichi.jp</a></td>
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<tr>
<td>President-Elect</td>
<td>L. Scott Levin, MD</td>
<td>USA</td>
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<td>Vice President</td>
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<td>Secretary General</td>
<td>David W. Chang, M.D., F.A.C.S.</td>
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<td><a href="mailto:dchang@mdanderson.org">dchang@mdanderson.org</a></td>
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<td>Historian</td>
<td>Julia K. Terzis, MD, PhD</td>
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<td>Immediate Past-President</td>
<td>Panayotis Soucacos, MD</td>
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<td><a href="mailto:psoukakos@ath.forthnet.gr">psoukakos@ath.forthnet.gr</a></td>
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<tr>
<td>Immediate Past-President</td>
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<tr>
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<tr>
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<td>Greece</td>
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<tr>
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<td><a href="mailto:Notlaw72@sbcglobal.net">Notlaw72@sbcglobal.net</a></td>
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