

## Clinical Publication List MAGNEZIX®

(Status: February 2017)

### Original Papers

#### **Biodegradable magnesium-based screw clinically equivalent to titanium screw in hallux valgus surgery: short term results of of the first prospective, randomized, controlled clinical pilot study**

Windhagen H<sup>1</sup>, Radtke K<sup>1</sup>, Weizbauer A<sup>1</sup>, Diekmann J<sup>1</sup>, Kreimeyer Y<sup>1</sup>, Schavan R<sup>1</sup>, Stukenborg-Colsman C<sup>1</sup>, Waizy H<sup>1</sup>

<sup>1</sup> Orthopaedic clinic of Hannover Medical School in the Annastift, Hannover, Germany

<sup>2</sup> Syntellix AG, Aegidientorplatz 2a, 30159 Hannover, Germany

**Biomedical Engineering Online 2013, 12:62**

#### **Frühergebnisse von distalen Metatarsale I Osteotomien bei Hallux valgus unter Verwendung eines biodegradierbaren Magnesium-Implantates**

[Short-term results after distal metatarsal osteotomies for hallux valgus, using a biodegradable magnesium-implant]

Plaass C<sup>1</sup>, Modrejewski C<sup>1</sup>, Ettinger S<sup>1</sup>, Noll Y<sup>1</sup>, Claassen L<sup>1</sup>, Daniilidis K<sup>1</sup>, Belenko L<sup>2</sup>, Windhagen H<sup>1</sup>, Stukenborg-Colsman C<sup>1</sup>

<sup>1</sup> Orthopaedic clinic of Hannover Medical School in the Annastift, Hannover, Germany

<sup>2</sup> Institute for diagnostic and interventional radiology of Hannover Medical School, Hannover, Germany

**Fuß & Sprunggelenk 2015, 13:148-55**

#### **Degradationsverhalten bioresorbierbarer Magnesium-Implantate bei distalen Metatarsale-1-Osteotomien im MRT**

[Degradation behaviour of magnesium-alloy screws after distal metatarsal osteotomies in MRI]

Modrejewski C<sup>1</sup>, Plaaß C<sup>\*</sup>, Ettinger S<sup>1</sup>, Caldarone F<sup>3</sup>, Windhagen H<sup>1</sup>, Stukenborg-Colsman V<sup>1</sup>, von Falck C<sup>2</sup>, Belenko L<sup>2</sup>

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<sup>3</sup> Radiological joint practice Schwarzer Bär, Hannover, Germany

**Fuß & Sprunggelenk 2015, 13:156-61**

#### **Early results using a biodegradable magnesium screw for modified Chevron osteotomies**

Plaass C<sup>1</sup>, Ettinger S<sup>1</sup>, Sonnow L<sup>2</sup>, Könneker S<sup>3</sup>, Noll Y<sup>1</sup>, Weizbauer A<sup>4,5</sup>, Reifenrath J<sup>4,5</sup>, Claassen L<sup>1</sup>; Daniilidis K<sup>1</sup>; Stukenborg-Colsman C<sup>1</sup>, Windhagen H<sup>1</sup>

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**Journal of Orthopedic Research 2016, 1-8**

### Case reports

#### **Magnesium-Based Absorbable Metal Screws for Intra-Articular Fracture Fixation**

Biber R<sup>1,2</sup>, Pauser J<sup>2</sup>, Geßlein M<sup>1,2</sup>, Bail H J<sup>1,2</sup>

<sup>1</sup> Nuremberg General Hospital, Paracelsus Medical University, Nuremberg, Germany

<sup>2</sup> Department of Orthopaedics and Traumatology, Nuremberg General Hospital, Nuremberg, Germany

**Hindawi - Case Reports in Orthopedics 2016, 1-4**

## **Bioabsorbable metal screws in traumatology: A promising innovation**

Biber R<sup>1,2</sup>, Pauser J<sup>2</sup>, Bremb M<sup>1,2</sup>, Bail H J<sup>1,2</sup>

<sup>1</sup> Nuremberg General Hospital, Paracelsus Medical University, Germany

<sup>2</sup> Nuremberg General Hospital, Department of Orthopaedics and Traumatology, Germany

**Trauma Case Reports 2017 (in press)**

## **Abstracts**

### **Biodegradable magnesium Herbert Screw in different modalities – image quality and artefacts**

Belenko L<sup>1</sup>, Könneker S<sup>2</sup>, Wacker F<sup>1</sup>, von Falck C<sup>1</sup>

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**ECR 2015, Poster C-2339, DOI: 10.1594/ecr2015/C-2339**

### **Biodegradable magnesium compression screws for hallux valgus surgery – a three year clinical follow up study**

Reifenrath J<sup>1</sup>, Plaass C<sup>2</sup>, Ettinger S<sup>2</sup>, Sonnow L<sup>3</sup>, Könneker S<sup>4</sup>, Noll Y<sup>2</sup>, Weizbauer A<sup>1</sup>, Claassen L<sup>2</sup>, Daniilidis K<sup>2</sup>, Stukenborg-Colsmann C<sup>2</sup>, Windhagen H<sup>2</sup>

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**European Cells and Materials 2016, 32 Suppl. 6: 51**

## **Review Articles**

### **MAGNEZIX® - die Revolution in der orthopädischen Chirurgie**

[MAGNEZIX® - the revolution in the orthopedic surgery]

Kirschner M<sup>1</sup>, Lucas A<sup>1</sup>

<sup>1</sup> Syntellix AG, Aegidientorplatz 2a, 30159 Hannover, Germany

**Chirurgische Allgemeine Zeitung (CHAZ) 2015, 1-3**

### **Magnesium-Based Compression Screws – a novelty in the clinical use of implants**

Seitz J-M<sup>1</sup>, Lucas A<sup>1</sup>, Kirschner MH<sup>1</sup>

<sup>1</sup> Syntellix AG, Aegidientorplatz 2a, 30159 Hannover, Germany

**The Journal of The Minerals, Metals & Materials Society 2016, 68: 1177-82**

### **Der Einsatz bioabsorbierbarer, magnesium-basierter Implantate in der Knochen-Chirurgie**

[The use of bioabsorbable magnesium-based implants in orthopedic surgery]

Kirschner M<sup>1</sup>, Seitz J-M<sup>1</sup>

<sup>1</sup> Syntellix AG, Aegidientorplatz 2a, 30159 Hannover, Germany

**Wehrmedizin & Wehrpharmazie 2016, No. 2: 76f.**

### **Magnesium alloys: a stony pathway from intensive research to clinical reality.**

#### **Different test methods and approval-related considerations**

Elmar Willbold<sup>1</sup>, Andreas Weizbauer<sup>1</sup>, Anneke Loos<sup>2</sup>, Jan-Marten Seitz<sup>3</sup>, Nina Angrisani<sup>1</sup>, Henning Windhagen<sup>1</sup>, Janin Reifenrath<sup>1</sup>

<sup>1</sup> NIFE, Lower Saxony Centre for Biomedical Engineering, Implant Research and Development, Department of Orthopedic Surgery, Hannover Medical School, Stadtfelddamm 34, 30625 Hannover, Germany

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**Journal of Biomedical Materials Research: Part A**

## Radiologic Papers

### **Biodegradable magnesium Herbert screw – image quality and artifacts with radiography, CT and MRI** Sonnow L<sup>1</sup>, Könneker S<sup>2</sup>, Vogt P<sup>2</sup>, Wacker F<sup>1</sup>, von Falck C<sup>1</sup>

<sup>1</sup> Institute for Radiology, Hannover Medical School, Carl-Neuberg-Strasse 1, 30625 Hannover, Germany

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**(accepted)**

## Varia & White Paper

### **Preliminary results of Hallux valgus Surgery using Magnesium Screws**

Juutilainen T<sup>1</sup>

<sup>1</sup> Helsinki University Central Hospital

**White Paper (2016)**

### **Magnesiumschraube in der Hallux-valgus-Chirurgie**

Klauser H<sup>1</sup>

<sup>1</sup> Hand- und Fußzentrum Berlin

**Orthopädische Nachrichten (2016), No. 4/16**

### **Hallux-valgus-Chirurgie mit knochenfreundlichen Biometallschrauben**

Kinast C<sup>1</sup>

<sup>1</sup> Orthopädie Zentrum Arbellapark

**Orthopress (2016), No. 2/16**

### **Hallux-valgus-Korrektur mit der Schraube, die zu Knochen wird**

Kinast C<sup>1</sup>

<sup>1</sup> Orthopädie Zentrum Arbellapark

**Orthopress (2017), No. 1/17**

## In preparation

### **Bioabsorbable magnesium versus standard titanium compression screws for fixation of distal metatarsal osteotomies – 3 years-results of a randomized trial**

Plaass C<sup>1</sup>, von Falck C<sup>2</sup>, Ettinger S<sup>1</sup>, Sonnow L<sup>2</sup>, Caldarone F<sup>3</sup>, Weizbauer A<sup>4,5</sup>, Reifenrath J<sup>4,5</sup>, Claassen L<sup>1</sup>, Waizy H<sup>6</sup>, Daniilidis K<sup>1</sup>; Stukenborg-Colsman C<sup>1</sup>, Windhagen H<sup>1</sup>

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<sup>6</sup> Hessing-Stiftung, Augsburg, Germany

**Journal of Orthopedic Science (JOS)**

**(submitted 8<sup>th</sup> February 2017)**

### **Die Verwendung von bioabsorbierbaren Magnesiumschrauben in der Hallux valgus Chirurgie: Ergebnisse einer vergleichenden Studie zur Implantation versus Titanschrauben.**

Klauser H<sup>1</sup>

<sup>1</sup> Hand- und Fußzentrum Berlin

**(Manuscript in preparation)**

**[25 Hallux valgus OPs mit MAGNEZIX® vs. historisches Kollektiv (Asien)]**

Thevendran G<sup>1</sup>

<sup>1</sup> *Mount Elizabeth Hospital, Singapore*

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