



## P-538 - THE NEW ERA OF 3D-PRINTING TECHNIQUES IN A MEDICAL SETTING: EARLIER EXPERIENCE WITH THE USE OF BOTULINUM TOXIN FOR COMPLEX VENTRAL HERNIA

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### Resumen

In the last years 3D printing has progressively gained widespread interest for its several applications in many medical fields. Among the most common diagnostic imaging techniques, computed tomography (CT) and magnetic resonance imaging (MRI) allow only two-dimensional images to obtain information on different pathologies. This requires excellent visualization skills from not specialized medical doctors. The 3D printing has been developed to overcome the current disadvantages of conventional imaging techniques. The 3D models are created from the diagnostic studies of the patient (MRI, CT, PET or a combination of those) with a process that fuse advanced medical imaging algorithms and medical image processing, which are supervised by specialized radiologists. Hereby we describe the cases of two patients with giant incisional hernias. The patients underwent 3D study before botulinum toxin treatment and another 3D model a month after the botulin toxin. With the 3D model we calculated the abdominal cavity volume before and after the treatment with botulinum toxin. Six weeks after the toxin we planned the surgery. The operation time was 180 min and 150 min respectively. The patient's diet was resumed on the first day postsurgery, and the postoperative hospital stay was five days. Our experience gives an overview of the current use of 3D-techniques, more specifically in the field of abdominal wall defect.