Recurrent Spondylodiscitis: case report

Example of Use

Patient: male, 62 years old
17.03.2015:

Recurrent spondylodiscitis L2-4, epidural abscesses following dorsal spondylodesis L2/3 and decompression during spondylodesis 12/2014.

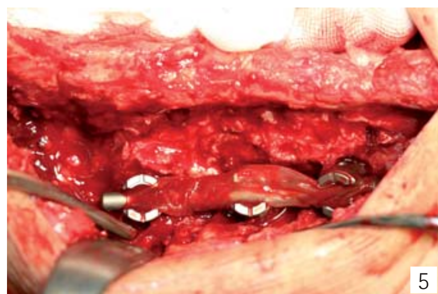
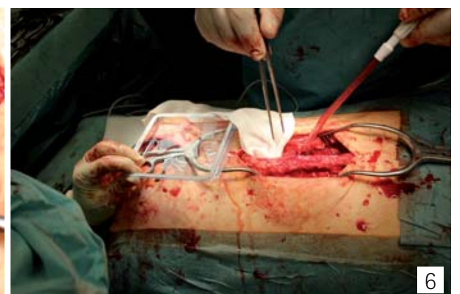
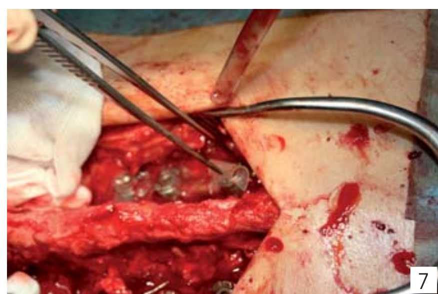
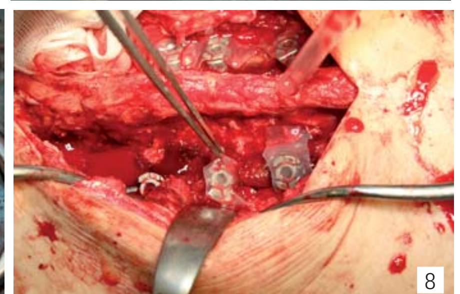
Diagnosis:
Dorsal and ventral paravertebral lumbar abscesses LV 2/3-LV 5/SV1, multi-segmental spondylodiscitis L2-4, bilateral gluteal abscesses, condition following dorsal stabilisation L2/3 and evacuation of abscesses on 09.12.2014 in domo.

Secondary diagnosis:
- Condition following 11/2004 sepsis of unclear origin with Staphylococcus aureus detected within the cell culture
- Rheumatoid arthritis, rheumatoid factor positive, CCP antibodies positive, erosive (ED 1996)
- Myelodysplastic syndrome, DD: toxic bone marrow damage on etanercept
- Therapy refractory thrombocytopenia since 2007/ DD: Hypersplenia syndrome due to cirrhosis of the liver (post-hepatic) / DD: Thrombocytopenia with positive thrombocyte auto antibodies
- Immune haemolytic anaemia with evidence of warm auto antibodies

Treatment:
19.03.2015:
- Dorsal examination with evacuation of paravertebral abscess and decompression of L2/3, L3/4 and L5/S1. Extension of the spondylodesis of L2/3 to L2-4; evacuation of abscess in lumbosacral passage, bilateral; swab collection; wrapping of implant in Gentamicin foils
- Evacuation of gluteal abscess, bilateral with insertion of Gentamicin foils

23.03.2015:
- Ventral pre/paravertebral evacuation of abscesses and spondylodesisviacage L2/3 and L4/5 upper left retroperitoneal access; swab collection
- Dorsal examination of wound and both lumbar and gluteal flushing - little sub-fascial fluid at the surgery site

01.04.2015:
Lumbar and gluteal puncture; swab collection.
02.04.2015 and 03.04.3015:
Stab incisions and lumbar seroma aspiration and gluteal haematoma aspiration.
Microbiology:
Intra-operative swabs collected on 19.03.2015 and 23.03.2015: Staphylococcus aureus.

1. *Moistening of the GENTA-FOIL resorb® with NaCl*
2. *Grasping of the GENTA-FOIL resorb® with dissecting forceps*
3. *Wrapping of the spondylodesis rods with GENTA-FOIL resorb®*
4. *Wrapped spondylodesis rod*
5. *Insertion of the GENTA-FOIL resorb®-wrapped spondylodesis rod into the screw innie*
6. *Being careful with suction, it is preferable to use swabs*

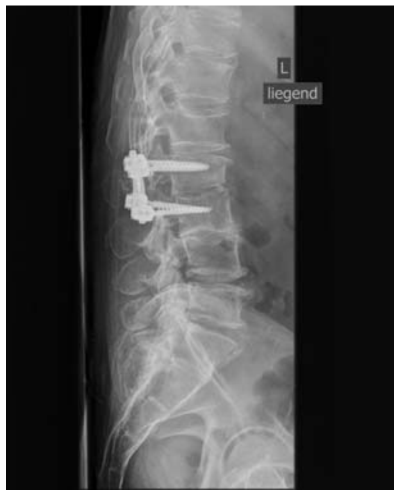
7/8. Wrapping of the screw heads with GENTA-FOIL resorb®

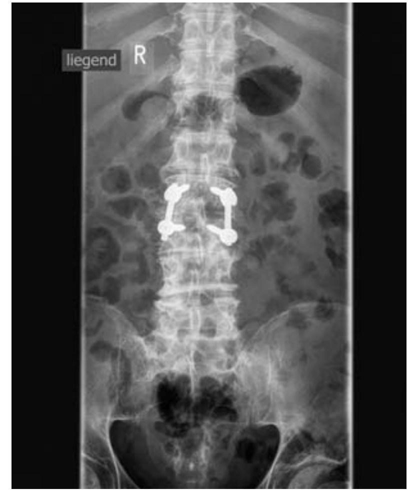
Subcutaneous lumbar and lumbosacral puncture on 01.04.2015: No bacteriological growth.

Tip of CVC on 31.03.2015: MRSE positive.

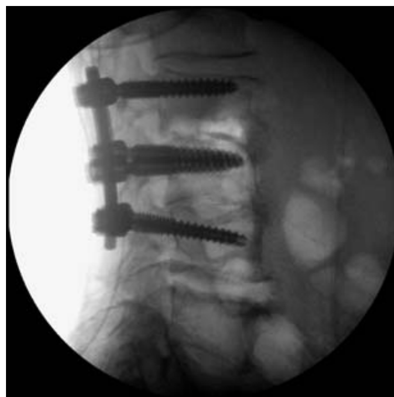
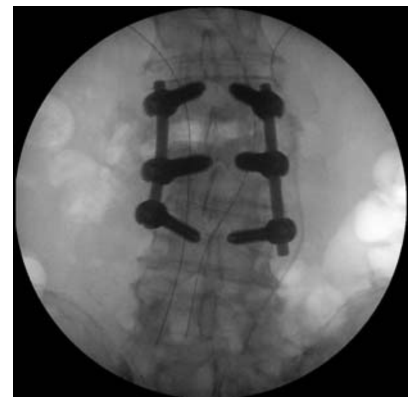
X-rays of the lumbar spine in 2 planes, taken 18.03.2015:
Unchanged compared to the previous images of existing dorsal instrumentation L2/3; destruction of the L2/3 end plate; existing osteochondrosis L3-5; reversed lumbar lordosis.
MRITV and LV on 17.03.2015:
Large subcutaneous gluteal abscesses, bilateral; condition following dorsal stabilisation L2/3 with suspected abscess structure in the intervertebral disc space L2/3 and destruction in the vertebral body end plates: Spondylodiscitis at the L4/5, and possibly also at the L5/S1 vertebrae, with epidural abscess formation; extensive grape-like abscess formation, both para and prevertebral, at the LV 2 - SV 1 vertebrae; pronounced abscess formation dorsally on both sides of the spinous processes, extending caudally and gluteally.

Procedure:
After informing the patient of risks (considerable increased risk during surgery due to the secondary diagnoses) and pre-operative preparation, the above mentioned surgical procedure was performed on 19.03.2015 under routine general anaesthetic.
On 23.03.2015, the ventral procedure and the bilateral dorsal lumbar and gluteal second-look procedures were performed. Radiological follow-up examinations indicated that the surgery had the desired result, with the screw and rod system lying correctly. The patient was mobilised post-operatively on the days following each surgical procedure, and the patient was able to walk independently on level surfaces and as well as the stairs.
The antibiosis with Piperacillin and Tazobactam was started intra-operatively and was continued for 14 days post surgery. Subsequently, the patient was put onto oral Cefuroxim.
Due to fluctuating in swelling of the lumbar and lumbosacral wounds (accumulation of fluid) without any external signs of infection, paravertebral lumbar right (seroma) and gluteal (haematoma) punctures were performed and swabs were collected on 01.04.2015, the results of which were negative.
On 02.04.2015 (right) and 03.04.2015 (left), a gluteal stab incision with haematoma aspiration (abundant haematoma serum)





Pre-operative radiograph of the LSon 18.03.2015

Intra-operative radiographic monitoringon 19.03.2015 after dorsal stabilisation L2-4

and compression bandaging of the gluteal subcutaneous haematoma pockets were carried out. Due to subjective wellbeing and a decrease in inflammatory markers, a second antibiotic was not administered based on the swab results of the CVC tip (MRSE). On 08.04.2015 the patient was transferred from stationary treatment to rehabilitation, due to a clear reduction of the symptoms.

Surgical procedure 19.03.2015
Evacuation of lumbar and gluteal abscesses, debridement removal of the old rod-screw system L2/L3.
Flushing of the screw holes; insertion of GENTA-COLL®*resorb* sponges into screw canals; new instrumentation; L2-L4 spondylodesis rods wrapped in GENTA-FOIL*resorb*® prior to insertion (moistened with physiological saline solution beforehand); after insertion of the innies, the screw heads were covered with GENTA-FOIL *resorb*®; drainage without so-called wound closure.
Handling of Genta-Foil:
Malleability of the foil is good; foil slips off implants with a small diameter (rods) to a minor degree; danger of removal by suction in the case of small pieces of foil; compared to sponge, the foil is less inclined to stick to insertion instruments or swabs.
During the planned second-look surgery on 23.03.2015, almost irritation-free musculature, very little fluid, no new lumbar abscess. Implants still well wrapped in the foil.
No noticeable collagen residue compared to sponges.

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Head physician: Dr. Katja Liepold

REF	Size	Contents of Package
GF 25	2.5 x 2.5 cm	1 film / package
GF 255	2.5 x 5 cm	1 film / package
GF 1010	10 x 10 cm	1 film / package

1 cm^2 of foil contains:
5.6 mg collagen of equine origin

4 mg gentamicin sulphate, equivalent to 2.20-2.86 mg gentamicin base

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P1281 2015-09