



TREATMENT GUIDELINES

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AQUAMID® TREATMENT GUIDELINES

Patient selection

- Please assess the patient's suitability for Aquamid® treatment using the Aquamid Consent Form.
- Do not inject Aquamid in patients suffering from any disease affecting the injected area such as active acne, herpes or psoriasis.
- Patients with systemic diseases such as diabetes and patients with severe autoimmune or neutropenic disease should not be injected.
- Assess the area to inject and evaluate the presence of previous implants. Do not inject Aquamid into a site where another semi-permanent or permanent filler is present.
- If the injection site has previously been treated with an absorbable filler, this must be completely absorbed before Aquamid is injected (minimum 6 months delay).

Injecting Aquamid

- Proper disinfection of treatment area must be performed prior to injection, e.g. chlorhexidine with alcohol twice with a 5 minutes interval at least 5 cm around the injection site.
- Never overcorrect; it is preferable that the patient is seen 2–3 weeks after treatment for additional injection, if necessary.
- Remember to change needle in case of new injection area in order to avoid contamination.
- Always inject subcutaneously (never intradermally) using a linear-retrograde technique.
- Do not inject as a bolus.
- Do not inject during open surgery.
- Please see the training material "Aquamid in Action" for further information regarding the injection technique.
- Aquamid is removable by incision or needle suction, but Aquamid removal should be limited to complication treatment and not be used in case of overcorrection.

Prophylactic antibiotic treatment

- It is highly recommendable to use a prophylactic antibiotic treatment. The following combination is recommended: Azithromycin 500 mg p.o. and Moxifloxacin 400 mg p.o. administered as a single dose 1–6 hours prior to injection.
- Alternatively a combination of another macrolide and a quinolone can be used.
- The above combination of antibiotics will reach a high concentration within the injected tissue and should be given only once. This combination covers up to 95% of the normal occurring oral flora (both aerobic and anaerobic species) and has a long half-life time.

Post-injection and patient instructions

- Never save used Aquamid syringes. The syringes are for single use only.
- An antibacterial cream, e.g. Bactroban or Fucidin, can be applied to the injected area.
- Inform the patient not to touch the injected area for at least 6 hours.
- Inform the patient not to use cosmetics, lotion or the like for 24 hours after injection.
- Inform the patient to avoid any exaggerated mimic movements for 24 hours after injection.
- Male patients should avoid shaving for 24 hours after injection, when injected in the face.
- Patients injected in the lips or near the mouth must avoid kissing for 24 hours after injection.
- Patients should not be exposed to intense heat (e.g. solarium, sunbathing, and sauna) or extreme cold (e.g. wind chill) for 4 weeks after injection.
- It is important to instruct the patient to contact the injecting doctor if any swelling, tingling sensation or similar symptoms appear within 1–2 weeks after injection.

For a complete overview of the use of Aquamid please refer to the Instructions For Use.

COMPLICATION HANDLING

What to do if a complication arises

- Complications are very rare (less than 1 in 1.000 injections) after injecting Aquamid when using the right technique, however they can always occur and should be treated diligently.
- Any injection will cause transient self-limiting edema, redness, minor hematoma etc. for a few days.
- Complications related to Aquamid injections are mainly caused by bacterial infection and must therefore initially be treated with antibiotics.
- A tingling sensation in the injected area within the first couple of weeks post injection is usually the first sign of a low-grade bacterial infection.
- Early infections associated with injections of Aquamid have been reported to have some of the same symptoms as those caused by the injection procedure alone, e.g. symptoms like swelling, redness, pain, tenderness or warmth.
- If symptoms increase after 2 days or persist for more than 5 days, infection - predominantly bacterial - should be suspected and treated without further delay.
- A fine needle biopsy for microbiological examination (culture) from the infected area should be performed prior to start of antibiotic treatment, but the treatment should **not** be delayed.
- Start antibiotic treatment immediately. **Do not** use corticosteroids or NSAIDs as they may aggravate and prolong the symptoms, if an untreated infection is present.
- A negative culture does not exclude the presence of bacteria. If necessary, detection of most bacteria can be performed by PCR analysis.
- Normally the foreign body reaction after injection with Aquamid is minor and not clinically detectable. This reaction will markedly increase in the presence of a bacterial infection.

Foreign body infection

Soft tissue infections are difficult to treat, especially in the presence of a foreign body, due to a transient poor vascularization of the injected tissue:

- If a foreign body infection occurs after Aquamid injections, the signs of infection are often of a low-grade. They do not always clearly express the usual signs of infection, such as redness, tumefaction, pain and pulsation.
- For a gel like Aquamid, the bacteria may spread to adjacent tissues. It appears as if the gel has moved, but it is in reality an expansion of the inflammatory process.

Biofilm

Delay in treatment with appropriate antibiotics may lead to the development of a biofilm, which may further complicate resolution of the infection.

- The signs of low-virulence infection and subsequent biofilm development are often faint and do not always clearly express the usual signs of infection, like redness, tumefaction, pain and pulsation. This may give rise to low-grade infections that may not be clinically apparent until months or years after the injection.
- The development of a biofilm in which the bacteria may become dormant makes the infection difficult to treat with antibiotics. Polyacrylamide gel does have the potential to support a biofilm because it is atoxic, biocompatible and without additives.

How to minimize the risk of infection

Any surgical procedure may give rise to potential bacterial infection due to one or more of the following reasons:

- Patient selection not in alignment with selection criteria. Please refer to the Aquamid Consent Form.
- Poor disinfection of the injection site.
- Presence of potential pathogens, i.e. patient's own micro flora.
- Wrong injection technique.

Prophylactic use of antibiotics will help to minimize the risk of infection.

COMPLICATION TREATMENT SCHEDULE

STEP 1

In case of infection within the first 14 days after injection we recommend the following oral combination:

Clarithromycin 500 mg x 2 p.o. plus
Moxifloxacin 400 mg x 1 p.o.

Treatment should be administered for 10–14 days.
It is very important **not** to combine the antibiotic treatment mentioned above with any form of corticosteroids or NSAIDs, as these tend to aggravate and prolong the symptoms.

STEP 2

If no reduction in symptoms after 3 days is registered, switch the treatment to the following combination, which may act against bacteria otherwise resistant to moxifloxacin and clarithromycin:

Clindamycin 600 mg x 2 p.o. plus
Tetracyclin 500 mg x 2 p.o.

Treatment should be administered for 10–14 days.

Azithromycin (Zitromax®) belongs to the group of macrolides.
Moxifloxacin (Avelox®) belongs to the group of quinolones.
Clarithromycin (Klacid®) belongs to the group of macrolides.
Clindamycin (Dalacin®) belongs to a group similar to the macrolides.
Tetracyclin belongs to the group of tetracyclins.

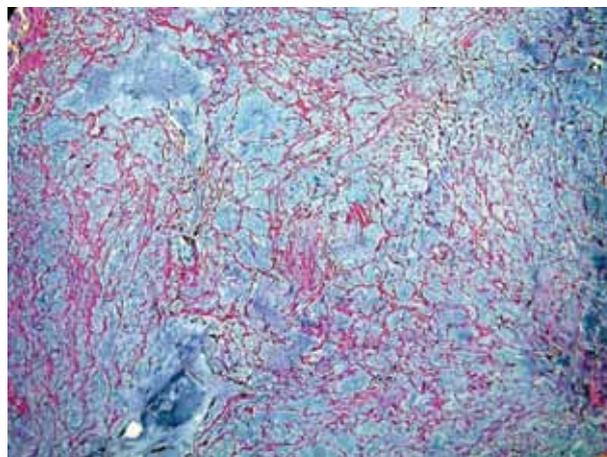
In case of any complication, please fill in the Incident Reporting Form (can be downloaded at www.aquamid.com/documents/) and send it to your local Aquamid distributor or fill in online at www.aquamid.com/downloads/Aqua_Incident_Reporting_GB-11.2017.pdf.



BIOPSY

How to take a biopsy

- A histological biopsy is recommendable for establishing details and presence of bacteria. One biopsy for histopathology should be sent in 4% formaldehyde (Lillies fluid), and another for culture should be sent in Stuart transport medium.
- When the surface is intact, a fine needle aspiration cytology (FNAC) can be performed using a normal sterile syringe and needle. Half of the material can be applied to a culture swab (Stuart's transport medium). The other half can be smeared on a glass slide to dry, stain and mount (no fixation) for cytological diagnosis (cells, gel and bacteria). Both should be sent to a microbiology or pathology laboratory for growth/culture and pathological diagnosis, respectively.
- If there is access to the site, a culture swab can be applied directly into a large opening or fluid can be collected onto the swab from the opening of the wound after expression of material. Both should be sent to a microbiology laboratory in Stuart's transport medium for growth and culture.
- It is important to inform the laboratory about sampling date and actual antibiotic treatment.



Tissue integration of Aquamid 2 years after injection The vessel bearing network is visualized and stained pink, and the Aquamid gel is stained blue. (Picture with the courtesy of Dr. Lise Christensen).

REMOVAL OF AQUAMID

How and when to remove Aquamid

Even with the fibrous in-growth that occurs over time, and which allows for a network of fibers to be created to hold the implant, it is still possible to remove the implant. Clinical experience has shown that removal of Aquamid is possible even many years after injection even though the need for removal of Aquamid is very rare.

Aquamid becomes fully integrated in the tissue and may be difficult to locate in case of removal. An ultrasound scan can be performed prior to removal in order to evaluate the exact location and volume of the gel deposit.

At injection time (overcorrection)

- Aquamid can be removed by needle aspiration or puncturing and squeezing. This can be done in case of overcorrection or in case of a low-grade chronic infection.

After a couple of days

- The gel can also be removed a couple of days after injection using the same technique as above.

After several months

- At a later stage, i.e. up to 24 months after injection, the tissue integration is either partial or complete, but the fibrous strands are delicate, and it is still possible to remove injected gel by needle aspiration and/or manual expression through a small stab incision using local anaesthesia.
- Although Aquamid is transgressed with fine strings of connective tissue, the gel remains at all times soft and elastic. It can be removed at any time up to 10 years after the injection and probably beyond that. Experience with Aquamid removal 10 years after injection has revealed that the removed Aquamid gel comes out in strings with intact elasticity and cohesiveness.
- Clinical experience has shown that the removal of Aquamid should be performed under surgical precautions using aseptic techniques and under antibiotic coverage.
- Other removal techniques such as laser treatments have been used, but these are limited to selected physicians with experience in these techniques.

Areas with complications

- Aquamid in areas with no complications is easy to remove whereas Aquamid in areas with complication, i.e. infections, the removal is more complicated as you are dealing with infected tissue. The removal has to be done with surgery or surgical laser under antibiotic cover.
- In case of persistent infection the removal may be complicated by scar tissue and should be performed surgically with antibiotic coverage. There is a risk of scarring in the area.

Before and after pictures

- It is always recommended to take pictures of the patient before and after removing the gel as well as prior to injection.





AQUAMID

The Aquamid range of safe injectable volume fillers integrates with the body's own tissues and gives a natural look and feel. Aquamid and Aquamid Reconstruction are based on Contura's proprietary hydrogel, composed of 97.5% water and 2.5% cross-linked polyacrylamide and enjoy an unmatched track record of continuous high levels of patient satisfaction.

Aquamid was approved in Europe in 2001 for facial augmentation and Aquamid Reconstruction in 2004 for facial augmentation and minor body contouring. The products are available in 40 countries in Europe, Asia, the Middle East, and South America. Over 575,000 Aquamid injections have been performed to date.

Science has always been the driving force behind Aquamid products. The efficacy and safety of Aquamid have been documented in several clinical trials involving more than 5,000 patients. These studies have been published in peer-reviewed journals.

For more information please visit www.aquamid.com.

CONTURA

Contura International is an innovative medical technology company based in Denmark that develops, manufactures and markets injectable hydrogels and related devices.

Contura's products – Aquamid for facial contouring and Bulkamid® for the treatment of female urinary incontinence are manufactured using the company's patented polyacrylamide hydrogel technology.

Aquamid is sold through a network of local distributors in several countries throughout Europe, Asia, the Middle East and South America.

Contura's products are developed, manufactured and tested in compliance with the European and US regulatory requirements for medical devices.