Botulism Antitoxin Behring

General rules for the injection/injection of immune sera of animal origin

1. Administration errors only when careful consideration of the indication.
2. Use only clear and particle-free immune serum preparations.
3. Be prepared to treat shock.
4. Immune sera may be administered to patients with a history of allergic reactions to equine protein only in combination with a medication for the prevention of shock reactions.
5. The patient must be monitored closely for signs of the onset of shock and kept under medical supervision for 2 hours after the administration of the immune serum.

Management of adverse drug reactions

Clinical manifestations, symptoms and signs

Anaphylactic/anaphylactoid reactions:
- Immediate interruption of administration of the antigenic material
- Shock recovery position
- Administration of corticosteroids
- Rapid intravenous volume substitution (CAV: antivenin plasma expander)
- If necessary, intravenous administration of uncocorticosteroids + H1, H2-receptor antagonists
- Monitoring of vital signs (pneumotachygraph)

Pneumonic reactions:
- Monitoring of the circulatory system
- Antipretreatment, including, if appropriate, physical measures (not compression)
- In case of severe shock, endotracheal intubation may be administered, if necessary

Late reactions (serum sickness):
- Onset: 7 to 21 days after start of therapy
- Antipretreatment, including, if appropriate, physical measures
- Check potential indicators for plasma separation
- Neurological disorders

*Urticaria (nettle rash), nausea (feeling of sickness), bronchospasm (narrowing of the airways), arterial hypertension (+ wet compresses)
*Fever, chills, arterial hypertension (+ wet compresses + Pethidine)
*Severe hypertension, pulse, blood pressure
*Hypertension (wet compresses)
*Arterial hypertension
*Cortico steroids + H2-receptor antagonists
*Antipyretic treatment, including, if appropriate, physical measures
*Determination of clinical status
*Determination of involvement of organs and any symptoms
*Determination of corticosteroids + H2-receptor antagonists
*Check potential indicators for plasma separation
*Fever, asthenia, headache, nausea, flushed, skin rash, swelling, dyspepsia, hypotension, arterial hypertension, fever, diarrhea, vomiting, paralysis

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Additional information
Botulism Antitoxin Behring is a Fermo-Serum®. Fermo-Serum is an immune serum "purified" by fermentation (enzymatic treatment). By processing with pepsin the risk of sensitisation and allergic reactions as a consequence is largely reduced.

The procedure is based on the fact that antibody molecules are more resistant to pepsin than the other serum proteins.

While other serum proteins are already degraded to peptides and amino-acids, the antibody globulins (7S) are only reduced by approximately a third of their molecular size (5S) by the pepsin-fragment (5S), while their antigenic activity is left essentially unchanged.