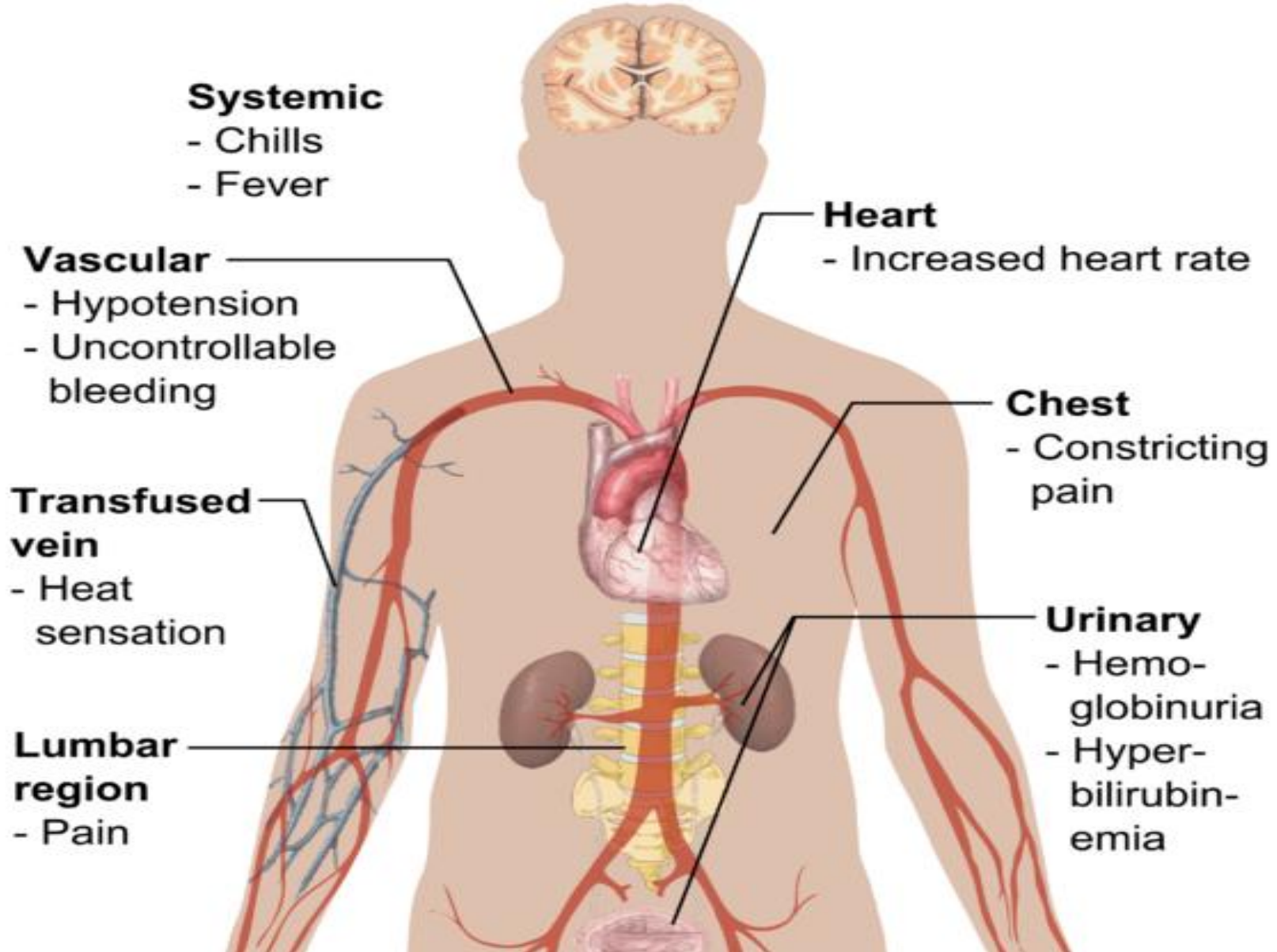


❖ Clinical picture of acute hemolytic reactions

- ✓ After less than 50 ml
- ✓ In awake patients chills, fever, nausea, chest pain and flank pain.
- ✓ In anesthetized patients, you should look
 1. oozing in the surgical field (bleeding tendency) the most important sign .
 2. unexplained tachycardia,
 3. Progressive unexplained hypotensio

Main symptoms of Acute hemolytic reaction



❖ Complication of acute hemolytic reaction

- ✓ Hemoglobinurea.
- ✓ Jundice.
- ✓ Acute tubular necrosis .
- ✓ Acute renal failure .

❖ Management of acute hemolytic reactions



1. mandates that the transfusion be stopped immediately
2. The unit should be re-checked., repeat compatibility testing and coagulation tests.
3. A foley catheter should be placed to check for hemoglobin in the urine.

4..IV fluid (ringer lactate +iv corticosteroid)
to correct shock

5.Alkalization of urine by NaHCO_3
(40 mEq) to protect against ARF

6. Mannitol 20% 100ml (force alkalinediures)

7. low-dose dopamine may help renal function and support blood pressure.

8. With rapid blood loss, platelets and fresh frozen plasma may be indicated.

9. Monitor urine output & vital data .

Delayed hemolytic reaction



❖ are generally mild in comparison.

❖ Cause

These are caused in patient who have been immunized to a foreign antigen by previous transfusion or pregnancy .

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❖ Incidence

Following a normal, compatible transfusion there is a 1-1.6% chance of developing antibodies to these foreign antibodies.

❖ When occur ???

May occur 5-10 days after transfusion

❖ Symptoms

are generally mild and include malaise, jaundice, fever, a fall in hematocrit despite transfusion, and an increase in unconjugated bilirubin.

❖ **Diagnosis** may be facilitated by **the direct Coombs test** which can detect the presence of antibodies on the membranes of red cells.

❖ Treatment

is generally supportive.

Immune complication



A

Hemolytic complication

B

Nonhemolytic complication





B

Nonhemolytic complication

Pyrogenic reactions

Urticarial reactions

Anaphylactic reactions

pulmonary edema

Graft versus Host disease

Immune suppression

Post-transfusion purpura



B

Nonhemolytic complication

Pyrogenic reactions

Urticarial reactions

Anaphylactic reactions

pulmonary edema

Graft versus Host disease

Immune suppression

Post-transfusion purpura

Pyrogenic reactions

- ✓ **Due to white cell sensitization.**
- ✓ This reaction is relatively common occurring in 1-3% of all transfusions.
- ✓ **The presenting symptom is**
 - ➔ Rise in body temperature without evidence of hemolysis.
 - ➔ Nausea
 - ➔ Vomiting
 - ➔ Headache
 - ➔ chills



✓ Treatment

- Stop transfusion .
- Give aspirin or paracetamol .
- Patients with a history of this reaction that require additional transfusions should receive leukocyte poor transfusions. Use of a filter traps most contaminants.



B

Nonhemolytic complication

Pyrogenic reactions

Urticarial reactions

Anaphylactic reactions

pulmonary edema

Graft versus Host disease

Immune suppression

Post-transfusion purpura