Rhabdomyolysis (Muscle Fiber Breakdown)

Rhabdomyolysis is the breakdown of muscle fibers due to injury. The injury may come from physical damage to the muscle like an injury but other causes are:

- High fever (*hyperthermia*).
- Seizures (*convulsions*).
- Low phosphate levels.
- Diseases of metabolism.
- Heatstroke.
- Drug toxicity.
- Over exertion.
- Alcoholism.
- Muscle is cut off from oxygen (*anoxia*).
- The squeezing of nerves and blood vessels (*compartment syndrome*).

Some drugs which may cause the breakdown of muscle are:

- Antibiotics.
- Statins.
- Alcohol.
- Animal toxins.

Myoglobin is a substance which helps muscle use oxygen. When the muscle is damaged, the myoglobin is released into the bloodstream. It is filtered out of the bloodstream by the kidneys. Myoglobin may block up the kidneys. This may cause damage, such as kidney failure. It also breaks down into other damaging toxic parts, which also cause kidney failure.

SYMPTOMS

- Dark, red, or tea colored urine.
- Weakness of affected muscles.
- Weight gain from water retention.
- Joint aches and pains.
- Irregular heart from high potassium in the blood.
- Muscle tenderness or aching.
- Generalized weakness.
- Seizures.
- Feeling tired (*fatigue*).

DIAGNOSIS

Your caregiver may find muscle tenderness on exam and suspect the problem. Urine tests and blood work can confirm the problem.

TREATMENT

- Early and aggressive treatment with large amounts of fluids may help prevent kidney failure.
- Water producing medicine (*diuretic*) may be used to help flush the kidneys.
- High potassium and calcium problems (*electrolyte*) in your blood may need treatment.

PROGNOSIS

The outcome will vary depending on the extent of kidney damage.
Problems may include:

- Dying of parts of the kidneys (*tubular necrosis*).
- The kidneys quit working (*renal failure*). This may require the cleaning of your blood by a machine (*dialysis*). Dialysis takes over the job of your kidneys until they improve or a transplant can be done.

HOME CARE INSTRUCTIONS

This problem is usually cared for in a hospital. If you are allowed to go home and require dialysis, make sure you keep all appointments for lab work and dialysis. Not doing so could result in death.

Document Released: 11/30/2005 Document Re-Released: 10/15/2010
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