

BUPIVACAINE-INDUCED CARDIAC ARREST FOLLOWING AN EPIDURAL ANESTHESIA

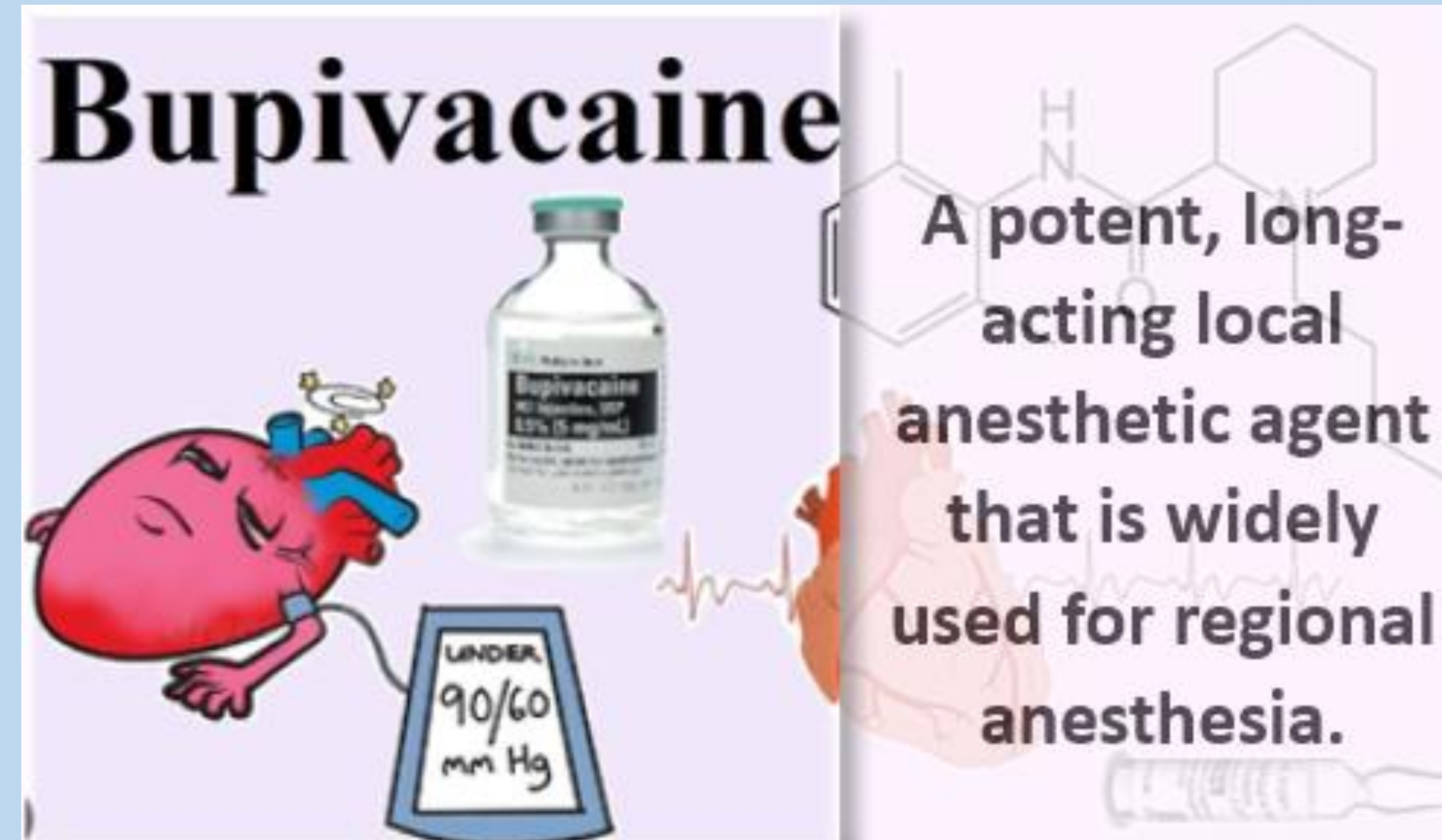
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CASE

A 21-year-old pregnant female at 38 weeks, with no significant cardiac history, was admitted to the hospital for induction of labor and child delivery, indicated by *intrahepatic cholestasis of pregnancy*.

- ❑ During the procedure, the patient was started on *epidural bupivacaine bolus*.
 - ❑ Two minutes after she got a bolus of bupivacaine, she went into *pulseless electrical activity (PEA)*.
- ❑ A cardiopulmonary resuscitation commenced with a prompt cesarean delivery of her male infant.
 - ❑ The epidural bupivacaine was stopped, and an *intrepid infusion* was administered to reverse its potential effects.
- ❑ The patient achieved ROSC and later regained full consciousness. Echocardiogram and CT coronaries were unrevealing.

BACKGROUND



Because bupivacaine binds rapidly to a large proportion of sodium channels during action potentials but releases from these channels slowly, *a large proportion of the medication accumulates and is associated with a higher incidence of cardiac toxicity than shorter-acting agents.*

DECISION-MAKING

- ❑ This case showed that the development of PEA was potentiated after the patient got another bolus of bupivacaine.
- ❑ Prompt cardiopulmonary resuscitation and administration of intralipid infusion helped the patient's recovery.

CONCLUSION

This case supports the idea that bupivacaine could cause cardiotoxicity, especially PEA, in humans. Further research is needed to identify essential features in patients who are prone to this adverse effect.

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