



# Camel shape in transpulmonary thermodilution monitoring

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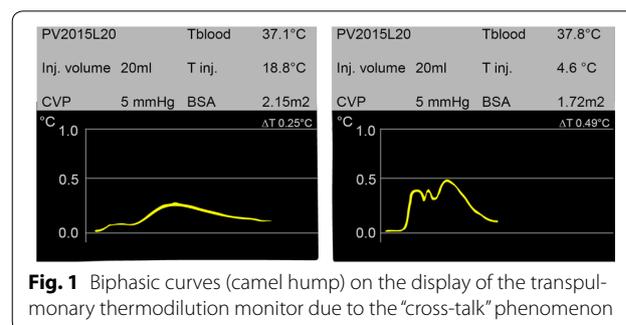
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Transpulmonary thermodilution monitoring (TTM) is increasingly used in intensive care medicine. It is recommended to observe the TTM curve as abnormal shapes have a wide range of differential diagnosis.

A biphasic “camel hump” curve can be the result of intermittent solute injection or an atrial septal defect with right-to-left shunting. However, it may also point to a “cross-talk phenomenon” where the venous injection point and the arterial detection point are too close to each other, allowing direct transmission of temperature from the venous to the arterial side.

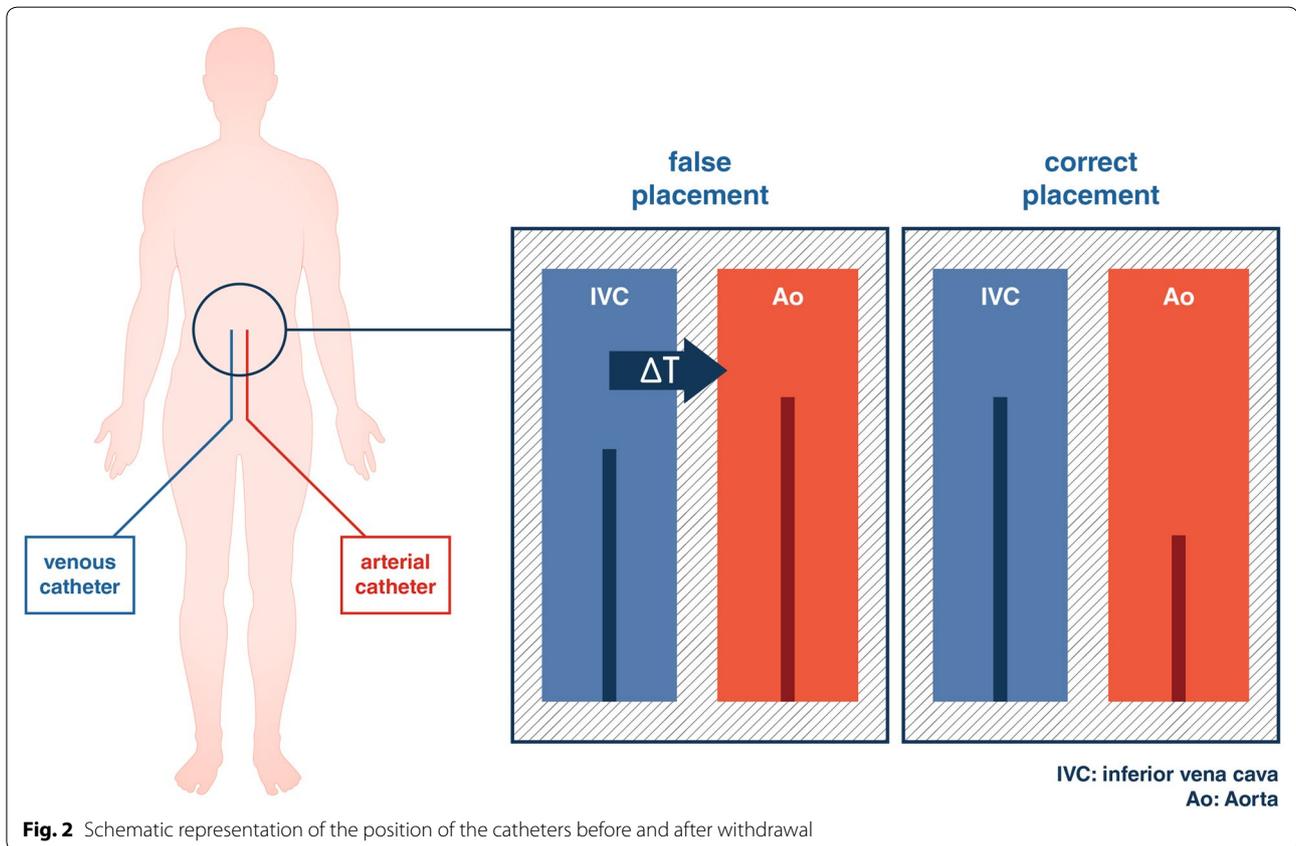
This is most often seen in patients who have their femoral central and femoral arterial line placed on the same side, but can also occur with placement on the contralateral side.

We present two patients with burns in the upper body who had their venous and arterial line placed on contralateral sides. In both patients 20 mL of saline was injected properly without interruption through the venous catheter. A biphasic curve appeared (Fig. 1). After withdrawing the arterial catheter 4 cm the curve had a normal shape (Fig. 2). This allowed to exclude other causes and haemodynamic measurements were reliable for further diagnostic approaches.



**Fig. 1** Biphasic curves (camel hump) on the display of the transpulmonary thermodilution monitor due to the “cross-talk” phenomenon

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