

RECOMMENDATIONS

From this study it was recommended that:

Central venous to arterial carbon dioxide gradient may be considered in any futural alterations in the protocol of detecting postoperative complications and mortality in patients undergoing cardiac surgery under cardiopulmonary bypass, putting in mind its simplicity and easy applicability.

LIMITATIONS

Before interpreting ΔPCO_2 , some precautions have to be taken. Numerous potential causes of error of measurements must be eliminated: incorrect sample container, contaminated sample by air or venous blood or catheter fluid.

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المخلص العربي

معظم جراحات القلب المفتوح تجري حاليا باستخدام ماكينه تجاوز القلب والرئه، مما يجعل المريض عرضة لمجموعه مختلفه من مضاعفات ما بعد الجراحه التي تنتج عن انخفاض تدفق الدم في الدوره الدمويه الدقيقه للقلب والمخ وباقي أعضاء الجسم والتي قد تؤدي إلي قصور في أداء أعضاء الجسم، لذلك فان التعرف علي وسائل للتنبؤ بحدوث المضاعفات أو الوفاة يعتبر موضوع هام.

الفرق في نسبة ثاني أكسيد الكربون بين الدم الوريدي المركزي والدم الشرياني يمكن استخدامه كدلاله علي فاعليه الدم الوريدي علي إزالة ثاني أكسيد الكربون الذي تنتجه الأنسجه. حتي الآن فان فارق نسبة ثاني أكسيد الكربون بين الدم الوريدي المركزي والدم الشرياني تم بحثه فقط في حالات الصدمه التسمميه. لكن لم ترد تقارير حول سلوكه وعلاقته بالنتائج السريره ما بعد جراحات القلب المفتوح.

وكان هدفنا من هذا العمل هو تقييم القيمه التنبؤيه لفارق نسبة ثاني أكسيد الكربون بين الدم الوريدي المركزي والدم الشرياني لمريض جراحات القلب المفتوح وقد أجريت هذه الدراسة علي ٧٠ مريضاً الذين خضعوا لعمليات القلب المفتوح باستخدام ماكينه تجاوز القلب والرئه وقد كانت أعمارهم تتراوح بين ١٨ و ٦٠ عاماً وقد تم سحب عينات وريديه وشريانيه معا بعد مرور ٣ ساعات ثم ٦ ساعات ثم ١٢ ساعه من الحجز بوحده عناية القلب المفتوح. وتم قياس نسبة ثاني أكسيد الكربون واللكتات ويتم ملاحظه معدل حدوث المضاعفات والوفيات خلال ٢٨ يوم.

أظهرت نتائج هذه الدراسة ما يلي:

- كان متوسط فارق نسبة ثاني أكسيد الكربون بعد ٣ ساعات ٧,١٣ مم زئبق بينما بعد مرور ٦ ساعات كان ٥,٧ مم زئبق وبعد ١٢ ساعه كان ٥,٥٩ مم زئبق.
- المرضى الذين كان لديهم فارق نسبة ثاني أكسيد الكربون ≥ 6 مم زئبق بعد ٣ ساعات يمثلون ٤١,٤ %، بعد مرور ٦ ساعات كانوا ٦١,٤ % وبعد ١٢ ساعه كانوا ٦٤,٣ %.
- كان متوسط اللكتات بعد ٣ ساعات ٢,٥٨ مليمول/ لتر وبعد ٦ ساعات كان ١,٨ مليمول / لتر وبعد ١٢ ساعه كان ١,٥ مليمول / لتر.
- مستوي اللكتات كان اعلي بشكل ملحوظ في المرضى الذين لديهم فارق نسبة ثاني أكسيد الكربون اعلي من ٦ مم زئبق عن باقي المرضى.
- كان هناك انخفاض ملحوظ إحصائيا في مستوي اللكتات في المرضى الذي انخفض فيهم فارق نسبة ثاني أكسيد الكربون إلي المعدل الطبيعي مابين الساعه الثالثه بعد العمليات والساعه السادسه بعد العمليات.
- كان معدل حدوث المضاعفات اعلي بشكل ملحوظ إحصائيا في المرضى الذين لديهم فارق نسبة ثاني أكسيد الكربون اعلي من ٦ مم زئبق.
- اختلال ضربات القلب كان أكثر المضاعفات حدوثا حيث مثل ٢٢,٩ % من إجمالي المرضى في الدراسة، تلاه تأخر الإفاقة بنسبة ١٧,١ % ثم الهذيان بنسبة ١١,٤ % ثم فشل عضلة القلب بنسبة ١٠ % ثم فشل كلوي حاد بنسبة ٨,٦ %.
- كان معدل حدوث الوفاه خلال ٢٨ يوم من الجراحه ٤,٣ %.
- كانت القيمه القاطعه لفارق نسبة ثاني أكسيد الكربون ٦ مم زئبق والتي عندها يمكن التنبؤ بحدوث مضاعفات بحساسيه وخصوصيه عاليه بعد ٣ ساعات، ٦ ساعات و ١٢ ساعه.



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رسالة مقدمة

لقسم الطب الحرج - كلية الطب - جامعة الإسكندرية
ضمن متطلبات درجة

الماجستير

في

الطب الحرج

من

تامر عاطف عبدالحميد

بكالوريوس الطب والجراحة، ٢٠٠٦

كلية الطب، جامعة الإسكندرية

٢٠١٥



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رسالة مقدمة من

تامر عاطف عبدالحميد عبدالحميد

للحصول على درجة

الماجستير

في

الطب الحرج

التوقيع

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لجنة المناقشة والحكم على الرسالة

أ.د/ سلوى شعبان شعراوي

أستاذ التخدير والعناية المركزة الجراحية

قسم التخدير والعناية المركزة الجراحية

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أستاذ مساعد الطب الحرج

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لجنة الإشراف

موافقون

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