Effects of Mode of Anaesthesia on Circulating Tumour Cells in Patients Undergoing Inhalational versus Total Intravenous Anaesthesia for Hepatocellular Carcinoma Surgery:

A Randomised Controlled Trial.

Informed consent - Information Sheet

The Department of Anaesthesiology of the University of Hong Kong is organizing a study in investigating of the effect of sevoflurane (SEVO) inhalational versus propofol intravenous anaesthesia (TIVA) on genetic expression, circulating tumour cells, DNA damage and biomarkers of immunity and inflammation in patients with hepatocellular carcinoma undergoing open hepatectomy.

We would like to invite your participation in this randomized, controlled trial. A total 220 patients will be recruited. If you agree, you will be randomly into one of two groups: A (**TIVA: total intravenous anaesthesia with propofol**) and group B (**SEVO: inhalational anaesthesia with sevoflurane**) for open hepatectomy. Both are well established, commonly used anaesthesia techniques and we are interested in whether either has a benefit in this type of surgery. Your participation in this clinical study is entirely voluntary. Pre-operative assessment will be performed in the preadmission clinic or in the general ward. You will be fasted from intake of solid food for 6 hours and clear liquids for 2 hours. All pre and postoperative procedures will be the same apart from the anaesthesia method (TIVA or SEVO).

If you agree to participate in the study, we will take 15 ml of blood at four time-points: before the surgery, during the surgery, in the recovery room immediately after surgery and on the first day after surgery. A research nurse or a doctor will take the blood.

SEVO group

Patients will be anaesthetised according to the following protocol: On arrival at the operation theatre, an intravenous cannula will be inserted. Standard monitoring with a pulse oximeter, non-invasive blood pressure, and three-lead electrocardiogram will be applied prior to induction as is usual practice. Non-invasive blood pressure (NIBP) will be checked at least every 5 minutes throughout the operation. An arterial line may be inserted at the discretion of the anaesthetist before or after anaesthesia induction to measure blood pressure directly and check electrolytes and blood gases. Additional intravenous cannulas or central venous lines may also be inserted to facilitate fluid and drug therapy, also at the discretion of the attending anaesthetist.

TIVA group

Patients in the TIVA group will be anaesthetized according to the following protocol: Monitoring and other anaesthetic procedures including the management of hypertension and hypotension will be the same as SEVO group (above). Induction and maintenance of general anaesthesia will be conducted using an intravenous infusion of propofol. Sevoflurane will not be used, and oxygen and air will be given to provide an inspired oxygen concentration of 30-50%.

Potential complications and/or risks of interventions

1. Venepuncture

   Minor complications from venepuncture including bruising and pain. Rare but serious complications include infection at the puncture site, extravasations, and/or nerve damage.

2. Risks of anaesthesia

   The complications of anaesthesia and surgery will be explained by your doctors. They type of anaesthesia (sevoflurane or propofol TIVA) will not have any bearing on these.

Rights and confidentiality

Your participation is voluntary. You have the right to terminate or withdraw from the study at any time, without having to explain your decision and with no consequences to your medical care. Your participation or not will not affect the service being provided to you in this hospital. Should new information arise which is deemed to be relevant as to your consent, such information will immediately be reported to you.

Treatment procedures in this study have been recorded in a protocol which has been approved by the Institutional Review Board of the University of Hong Kong/Hospital Authority Hong Kong West Cluster (HKU/HA HKW IRB). All the information collected will be coded and analysed for this research study. Your personal information will remain strictly confidential. The results of this clinical study may be published without revealing the identity of the individuals involved. Information can only be accessed by related research staff, regulatory authorities and the IRB.

Contacts

This study is to investigate the effect of different modes of anaesthesia on the expression of inflammatory genes and the numbers of circulating tumour cells. We sincerely hope that you can support this. Any clarification regarding the clinical study can be directed to the principal investigator, Professor Michael G. Irwin 2255 3303, or the HKU/HA HKW IRB at 2255 4086.

Consent of "TIVA vs SEVO" project

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1. Through this declaration, I agree to participate in the "TIVA vs SEVO" study according to the modalities described in the protocol.
2. I have been given an information sheet and received explanation regarding the nature, the duration and possible side effects that could result from the study and I was told what I will be asked to do.
3. I declare that I understand the explanations that were given to me as well as the aims, risks and limitations of the treatment proposed.
4. In particular, I declare that I understand and accept the possible risks venepuncture and anaesthesia.
5. I will collaborate with the physician responsible for the study and report to him any unexpected or unusual symptoms that I may have.
6. I have been informed that this study has been approved by the HKU/HA HKW IRB.
7. I have been informed that my refusal to participate in the study will not incur any penalty and I am participating in the study voluntarily.
8. I am free to withdraw from the study at any time, without having to justify my decision and without that decision causing any harm to the continuation of my therapy.
9. I accept that the study results may be disclosed to competent authorities and be published in a peer reviewed journal but my name and address will remain confidential.
10. By signing this document, I accept that my clinical report can be examined by the investigators or anyone duly appointed by them.

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Consent form

(Patient's name)	*(Patient's HKID number)*
(Patient's signature)	*(Date)*
(Research personnel 's name - Print name of person obtaining consent)	
(Research personnel's signature - Signature of person obtaining consent*)*	*(Date)*