APPARENT VISCOSITY OF ARTIFICIAL RED-WHITE AND WHITE THROMBI DURING
ANAESTHESIA AND SURGERY. J. R. W. Clegg and B. A. A. Sargeant. Medical Research,
Kensington Memorial Institute, Sydney Hospital, Sydney 2000, and Department of
Medicine, University of Sydney, Sydney 2006, Australia; and Department of
Medicine, Hadassah University Medical School and Hospital, Mount
S.正文.

This is a pilot study intended to explore some aspects of thrombus formation which might be of value in understanding the dynamics of anaesthesia, on the one hand, and the effects of anaesthesia and surgery on tissue perfusion, on the other. Patients studied included six subjects undergoing operations for retinal detachment (\(\delta\)), upper abdominal surgery (\(\delta\)), and a major orthopaedic procedure (\(\delta\)). Artificial thrombi, of morphology of red/
white and white arterial thrombi, were formed in vitro by means of VFFV,
variable frequency thrombo viscometer, at temperature 37°C, on freshly shed
blood, at mean shear rates of 36.8 and 80 sec\(^{-1}\). Blood samples were drawn
immediately prior to commencement of anaesthesia, and then at half-hourly
intervals. Anaesthesia was induced with chloropentone sodium, and halothane
or meperidine and droperidol. In general, the apparent viscosity of artifi-
cial thrombi increased during surgery.


Six hundred ml of whole blood from each of five healthy male donors was equally divided and stored at 4°C for 1–3 weeks in either standard ACD-A (2.8g trisodium citrate, 0.9g citric acid, 2.45g dex-
trose/41 anticoagulant solution, pH 4.6) or half-strength ACD-A (1.1g trisodium citrate, 0.8g citric acid, 2.45g dextrose, pH 4.2) to determine if low citrate concentrations adversely effec-
ted the following: prothrombin time (PT), thrombin time (TT), kaolin-cephalin clotting time (KCT), ethanol gel (EG) and fibrinogen levels. Low citrate concentrations had no significant
effect (Student's t test for paired scores) on any clotting index tested (see table below).

<table>
<thead>
<tr>
<th>ACD-A Strength</th>
<th>PT (sec)</th>
<th>TT (sec)</th>
<th>KCT (sec)</th>
<th>EG</th>
<th>Fibrinogen (mg/dl)</th>
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<tr>
<td>Standard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>42.8</td>
<td>neg</td>
<td>270.4</td>
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<td>7d</td>
<td>23.3</td>
<td>9.6</td>
<td>53.8</td>
<td>neg</td>
<td>224.6</td>
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<td>Half</td>
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</tr>
</tbody>
</table>

ABNORMAL PLATELET ULTRASTRUCTURE IN FULMINANT HEPATIC FAILURE. Bullock, G.\(^\ast\), Weston, M.J.\(^\ast\), Rubin, R.H.\(^\ast\), Roberts, J.\(^\ast\), Langley, P.G.\(^\ast\), White, Y.\(^\ast\) and
Williams, R.\(^\ast\) \(^\ast\)CIBA Laboratories, Horsham, England and \(^\ast\)Liver Unit, King's
College Hospital, London, England.

Platelets obtained from eight patients with varying degrees of liver damage
have been studied with respect to their ultrastructure. These platelets were
isolated from platelet-rich plasma which had been utilised in the pharma-

cological studies described by Dr. Weston (previous abstract) and were
compared with control platelets isolated from five normal subjects. The latter
were chosen for normal bleeding times and response of their platelets to
aggregation with ADP and collagen.

Marked differences were seen between control platelets and those from the
test group in that there was an alteration in the microtubular content and
disposition. In addition, these changes were partially reversed during the
recovery period suggesting that production of new normal platelets was taking
place. This is one of the few conditions where platelet structure has been
correlated with a clinical disorder.