

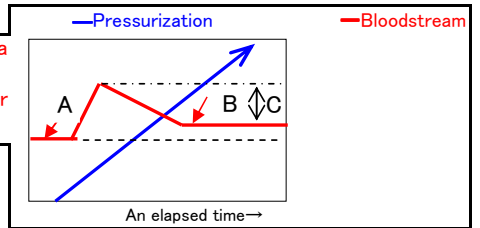
⑤ A use and data analysis of contact pressure / a bloodstream measuring system

17-Dec-07

AMI Techno CO.,LTD.

Yukiya KOMINAMI

At the age of the part where there are the big blood vessel layer and muscular coat in a deep part. In comparison with bloodstream A which I do not press, there is the case that bloodstream B which I pressed increases. The quantity that bloodstream fell under pressure influence is C.



1 Data example by use only for SKIN PRESSURE / BLOOD CURRENT MEASURING CHAMBER SYSTEM (A0203)

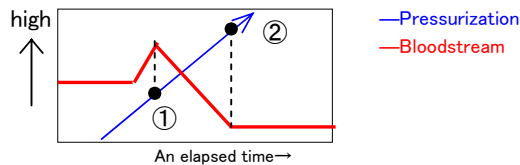
1.1 I know a characteristic by the pressure that can reappear

①The pressure that bloodstream begins to fall to. ②Pressure to completely obstruct bloodstream.

*Bloodstream does not become 0 so that a laser reacts to tissue except blood even if bloodstream is completely disturbed.

A method: I let CHAMBER (A0203) come in contact with a body and pressurize it slowly

*pressure skin perpendicularly. (Shear stress is not caused)



It is necessary to perform it after practicing it to perform stable pressurization

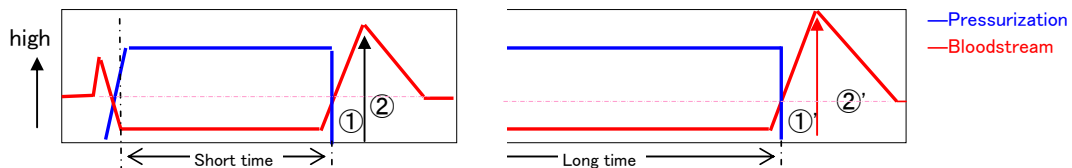
1.2 Watch the tendency distinction that strength of pressure and bloodstream of an elapsed time return to

A method: I watch the change that bloodstream after having removed pressure suddenly after pressure is restored. It is different by pressurization power, pressurization time

①Lapsed time from which a blood flow returns

②Quantity of bloodstream change that bloodstream returns to after liberation from pressure. (It depends on a capacity calculation by a graph)

As interest in particular: There is the phenomenon that bloodstream happens in the shape of a wave during the pressure by the pressure that bloodstream does not completely obstruct. It influences quantity of re-return current.



2 When Contact surface pressure-Blood flow sensor (A0010) is used with SKIN PRESSURE/BLOOD CURRENT MEASURING CHAMBER SYSTEM (A0203)

*Power to increase shear stress to occur in the weight and the fiber tension and transformation by it performs it as contact pressure at the time of use of a tool.

2.1 A bed, evaluation of bloodstream influence of skin of body pressure by a chair

< Comparison of a tool. Posture. A period of posture conversion >

2.2 Influence from circumference to suppressed skin bloodstream and evaluation.

(Clothes, a bandage)

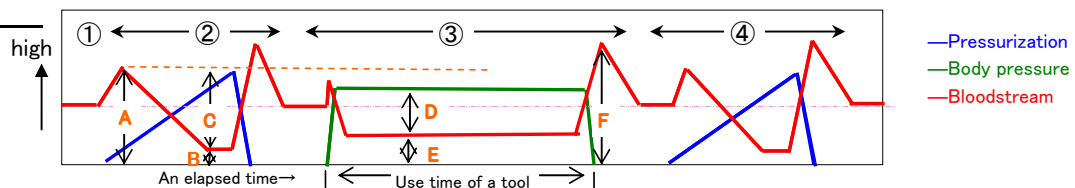
A method: ①I put on Contact surface pressure / Blood flow sensor (A0010) to a body

②I wait for bloodstream to be stable. And I cover Contact surface pressure / Blood flow sensor (A0010) with suring chamber (A0203) and strongly pressurize it slowly. (Data of the bloodstream obstruction situation of a part)

③I exclude suring chamber (A0203), and Contact surface pressure / Blood flow sensor (A0010) waits for bloodstream to just return to bloodstream of the basis and I use a tool (A bed, a chair, clothes, a bandage) of an evaluation purpose and continue measuring it

④When it measures with tools for a long time : etc.: And I cover Contact surface pressure / Blood flow sensor (A0010) with suring chamber (A0203) and strongly pressurize it slowly. (Confirmation of a change of data of the bloodstream disorder situation of a part)

3 Analysis



A: greatest bloodstream

B: complete bloodstream obstruction

C: Complete bloodstream obstruction width $A-B=C$

D: Bloodstream obstruction width $A-E=D$

E: bloodstream measurement value

F: return current

<Tool evaluation Example 1 > width that declined of bloodstream D, $D \div C = \bigcirc$ or, % (C=90, D=80 flow=89%)

...When damage is big, there is it exceed 100%

<Tool evaluation Example 2 > Bloodstream measurements E, $E \div A = \bigcirc$ or, % (A=100, E=20, flow 20%)