

Re: Heart-surgery drug risky, researchers find

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- *From:* <Hawki63@xxxxxxxxxxxxxx>
 - *Date:* Sat, 28 Jan 2006 21:07:16 GMT
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"Sue" <chrli699@xxxxxxxxxx> wrote in message
news:1138313939.179796.274600@xx

>

> Roman Bystranyk wrote:

>> Thomas H. Maugh II, "Heart-surgery drug risky, researchers find", San

>> Jose Mercury News, January 26, 2006,

>> Link:

>> <http://www.mercurynews.com/mld/mercurynews/living/health/13715800.htm>

>>

>> A drug widely used during heart surgery to control bleeding doubles the

>> risk of kidney damage, forcing an estimated 10,000 patients onto

>> dialysis each year, according to a new study from a group that is

>> calling for surgeons to abandon its use.

>>

>> Known as aprotinin, the drug also increases the risk of heart attack 48

>> percent, heart failure 109 percent and stroke 181 percent, according to

>> a study among nearly 4,400 patients reported today in the New England

>> Journal of Medicine.

>>

>> The researchers said the drug is not even needed in most cases because

>> there are two generic drugs that cost a tenth as much and are nearly as

>> good at stopping bleeding without increasing risks.

>>

>> "I wonder how we can ethically prescribe aprotinin when there are

>> alternatives that are safer," said Dr. Dennis Mangano of the Ischemia

>> Research and Education Foundation, who led the study.

>>

>> The drug, which is derived from the lung tissue of cows, was approved

>> by the Food and Drug Administration in 1993. It is used in a

>> significant number of the 1 million heart surgeries performed worldwide

>> each year.

>>

>> An FDA official said the agency is aware of the study and is reviewing

>> the data.

>>

>> Bayer, which manufactures the drug and sells it under the brand name

>> Trasyolol, said in a statement that it had not yet analyzed the study,

>> but that the results were not consistent with its own experience.

Re: Heart–surgery drug risky, researchers find

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- > It is my understanding that aprotinin is administered following CABG,
- > in order to reverse the anticoagulant effects of heparin. Heparin (an
- > anticoagulant) inhibits the conversion of prothrombin to thrombin, the
- > step just preceding formation of fibrin and stable platelet clot
- > formation.
- >
- > During CABG, fairly large cumulative doses of heparin are required to
- > prevent clot formation.
- >
- > Since the on–pump procedure exposes the patient's blood to a plastic
- > reservoir, pump filters and much tubing, the body's clotting cascade,
- > natural immune and inflammatory responses are activated. All of these
- > reactions can result in red blood cell destruction and other
- > complications.
- >
- > This is one reason why minimally invasive cardiac surgery "MICS"
- > (off–pump) is generally favored over on–pump procedures, IMO (when
- > indicated).

you must be referring to MIDCAB....minimally invasive direct coronary bypass surgery.....which is NOT always "off pump"

"off pump surgery" can be sternum splitting OR minimally invasive...

the two are not totally interchangeable

in MIDCAB the surgeons does NOT split the sternum...but works thru smaller incisions..usually several...to sew bypass grafts onto diseased coronaries

"may be performed with or without use of the heart lung machine"

limitations to MIDCAB ...only can be used in a very small subset of patients..usually those whose disease is limited to the LAD....

"beating heart" surgery..on the other hand...can be used on MOST patients..as long as the surgeon involved is skilled at the technique...approx 25% of bypass surgeries in the uS currently are off pump....

a "stabilizer" similar to a suction cup thingie ..is applied to the heart..and allows the immobilization of the area being operated on...it is quite a fascinating surgery to watch...

recovery from any heart surgery NOT involving the bypass machine is quicker and has less risks ..such as "pump head" and risks of emboli etc ...blood flow thru the heart lung machine is VERY fast..and the blood cells can be

damaged

hubby had beating heart...tradiitional sternum splitting bypass...we even have a videotape of the procedure...he was in recovery room ..fully awake several hours after his surgery began (which took a tad less than 2 hours...3 grafts)...by 7pm night of surgery he was eating a turkey sandwich..home in 72 hours...

- >
- > Since the blood is not exposed to large surface areas of foreign
- > material, MISCS eliminates the need for heparin administration.
- > Therefore heparin reversal is not required, and the need for aprotonin
- > (or other similar drug) is avoided as well!
- >
- > In addition, the body's natural yet undesirable responses (such as
- > complement activation, cytokine activation, activation of coagulation
- > factors etc.) are minimized as well.
- >
- > Just some additional thoughts.
- >
- > –Sue (non doctor)
- >

• **Follow–Ups:**

- ◆ **[Re: Heart–surgery drug risky, researchers find](#)**
◇ From: William Wagner
- ◆ **[Re: Heart–surgery drug risky, researchers find](#)**
◇ From: Sue

• **References:**

- ◆ **[Heart–surgery drug risky, researchers find](#)**
◇ From: Roman Bystrianyuk
- ◆ **[Re: Heart–surgery drug risky, researchers find](#)**
◇ From: Sue

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