

Critiques on cyclooxygenase inhibitors and cardiovascular disease in older patient...

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Critiques on cyclooxygenase inhibitors and cardiovascular disease in older patients
Introduction There is an already proved fact that cyclooxygenase-2 inhibitors are created to cause not as much of gastrointestinal blood loss. However, some scientists are still not sure if they are safe enough for cardiovascular system. The authors of the given study investigated the possibility of acute myocardial infarction. The results of the study can be applied for further investigations.

The goals and methods of the research

A research with the participation of 54 475 people of approximately 65 years old was implemented. The participants were to use the medicines from two programs financed by the country. The main goal of the investigation was to examine the quantity of hospitalizations for acute myocardial infarction (Solomon et al, 2004).

As a result 10 895 cases of acute myocardial infarction were revealed. They were divided according to age, gender and the time of hospitalization. The scientists built special regressive models in order to show the connection between taking rofecoxib and celecoxib without NSAID and the risk of acute myocardial infarction (Solomon et al, 2004).

During the investigation the rofecoxib was proved to be more dangerous than celecoxib: “ odds ratio [OR], 1. 24; 95% CI, 1. 05 to 1. 46; P= 0. 011) and with no NSAID (OR, 1. 14; 95% CI, 1. 00 to 1. 31; P= 0. 054” (Solomon et al, 2004).

However, it was revealed that the dosage rate is also important: high dose of celecoxib is easily endured in contrast to rofecoxib:

rofecoxib < or = 25 mg versus celecoxib < or = 200 mg (OR, 1. 21; 95% CI,

1.01 to 1.44; $P=0.036$) and rofecoxib > 25 mg versus celecoxib > 200 mg (OR, 1.70; 95% CI, 1.07 to 2.71; $P=0.026$) (Solomon et al, 2004).

Celecoxib was also proved to be safer if taken during long period:

the adjusted relative risks of AMI associated with rofecoxib use of 1 to 30 days (OR, 1.40; 95% CI, 1.12 to 1.75; $P=0.005$) and 31 to 90 days (OR, 1.38; 95% CI, 1.11 to 1.72; $P=0.003$) were higher than > 90 days (OR, 0.96; 95% CI, 0.72 to 1.25; $P=0.8$) compared with celecoxib use of similar duration (Solomon et al, 2004).

Conclusion

The study revealed that the most vulnerable audience to acute myocardial infarction is white people around 80 years old with risk factors such as diabetes or hypertension, as well as those who already went through AMI in the past. Those people who used NSAID appeared to be healthier. The high risk of acute myocardial infarction was revealed with people who were taking more than 25 mg of rofecoxib. The study was implemented for the first ninety days of use. The results of the study can be applied for further investigations (Solomon et al, 2004).

Works Cited

Solomon, Daniel H et al. Relationship Between Selective Cyclooxygenase-2 Inhibitors and Acute Myocardial Infarction in Older Adults. American Heart Association, Inc., 2004