

## RIDING MY BICYCLE...

At first, let me deal with a theoretical problem. Let's assume that someone has the capability of simultaneously injecting inside the left ventricle both a molecule of albumin and an erythrocyte. Assuming that they both follow the same path through circulation and back to the heart, which is more likely to enter the right atrium first?

This simplified problem requires a different model of thinking. It's inevitable for anyone who tries to solve it, to recall the basic physiological principle that blood is actually a two component entity (plasma component-cellular component). However, in the course of this thinking process many other questions almost automatically pop up. Which one of the components moves faster than the other since they are both exposed to the same pressure gradient? Why is it that although the volume ratio of these two components is mentioned in every physiological textbook, the mass ratio is nowhere referred? Is it possible that mass ratio alterations may be important in blood pressure control especially in diseases such as polycythemia vera where there is a definite change? Why is it that in heart failure our body chooses to increase the plasma component mass and decrease the cellular component mass? Is the failing heart failing equally for the two compartments?

I am sure that many other young doctors challenge themselves in a similar way. After all, this is the only medical research you can practice when you don't have access to research laboratories or high respected professors. And when you find it difficult to keep up with the molecular storm of current medical literature. You just stay faithful to the basic physiological principles because you know that sometimes you have to take two steps backwards in order to make one forward. It doesn't matter if you ask yourself logical or silly questions cause each one of the them will make you a better scientist. As long as you don't let others do all the thinking for you.

As far as I am concerned, I have decided long time ago to follow Pappenheimer's advice. In this time of jets I will continue to ride my bicycle...

## REFERENCES

1. PAPPENHEIMER, J. R. A bicycle in the age of jets THE PHYSIOLOGIST

MICHAEL LENOS