## Letters to the Editor

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## Reference

In relation to the article "Surgical treatment of the left aorta-ventricular tunnel" by Caliani et al. (RBCCV 2004; 19(2): 183-185), I believe that the report and the concise review are of interest to specialists. I think, however, that the authors should have mentioned the national publications too, as in 1979 we published an article reporting on a case and reviewing publications on the same anomaly (Left aorto-ventricular tunnel Stolf et al. – Arq. Bras Cardiol: 1979;32(6):381-386), in which we also discussed the possibility of the reappearance of the disease after correction, emphasizing the surgical technique, as well as the involvement of the aortic valve in adult patients.

My warmest regards,

Noedir AG Stolf, São Paulo - SP

## Cartels, professional groups and associations

In the globalized world, which heads towards the participation of workers from different fields to improve the quality of services thereby increasing profits and to produce the best possible product, much has been said about CARTELS. Among the professions most commonly accused of this practice are businessmen producing essential products, the self-employed organized in cooperatives, people who provide essential services and general healthcare professionals, in particular physicians.

The word 'Cartel' is defined as a commercial agreement among companies that, even though each company remains autonomous, are organized into cooperatives, syndicates or associations to unfairly control market and production shares, thereby determining the product's end price and suppressing market competition. According to the current neo-liberal political and economic arena, where the State continuously attempts to free itself from its constitutional and social obligations by selling or subcontracting the socalled "essential services", the public heathcare sector is the most prejudiced. Physicians are the most unjustly treated by this project-plan of a government that has not adequately invested in medicine for decades. Our honoraria have been falling behind inflation and the moment we try to organize ourselves to demand a better salary, the law courts intervene arguing the formation of a cartel.

The cost of everything increases. Taxes have increased over the last ten years by almost 100% and we have not seen any of this extra money invested in the healthcare system. On the contrary, the large public hospitals in Brazil and other hospitals that treat government healthcare patients are deteriorating and dying along with their patients. This is ridiculous, as the government has private public projects for other areas. It seems that the government gives priority to financial capital and the economy, penalizing healthcare and consequently human life, disrespecting the dignity and the hope of the people. Seven years ago, a physician, who contracted a healthcare plan (Unimed) for a family of five, paid two hundred and seventy Reals. Today, this healthcare professional spends more than seven hundred Reals to pay for medical assistance for his family.

The price that healthcare insurance companies and medical cooperatives are imposing on their users has increased. Unfortunately, this extra income has not been passed on to the physicians. However, the fact that these professionals fight for the implantation of an organized pricelist of procedures and unite as a manner of increasing the pressure, does not characterize the formation of a Cartel, as our union fortifies our call for justice so that we will be

heard. Currently, our honoraria are calculated from the pricelist created in 1992 by the Brazilian Medical Association. An appointment with the right to return to the doctor is twenty-five Reals (in healthcare plans), but annually we spend much money on keeping ourselves up-to-date and providing a good standard of medical care for our patients, by buying imported books and participating in national and international congresses.

Is it possible to consider that increasing the honorarium, aiming at updating and improving our knowledge and offering our patients more hope and safety - as human life is our most precious possession – is formation of a cartel? No, is my reply. On the contrary, we are faced with another terrible inversion of values and another great injustice against such a serious and dedicated group of professionals. For sure, the public as a whole, with their good-sense, think that we are right and will support us in the case that this petition is taken to the law courts. We believe that by demanding equity, the judge will provide justice to the doctors. The people responsible and to blame for the conditions of the Brazilian healthcare system today are those who forgot the public healthcare system and who ignored and violated the Brazilian constitution and the directives of government healthcare plans, harming the entire hospital network and driving away healthcare professionals, transforming the life of those that unhappily due to their lack of financial options are obliged to suffer the interminable queues in the public hospitals. Many patients die without even hearing one word from a physician about their disease.

Doctors truly desire the respect of the government to maintain a social-cultural standard consistent to their position in society. If the government intends to control the proliferation of private healthcare plans, the Government healthcare plan must be restructured and better administrated to offer the standards merited by the Brazilian people.

We must, for sure, join together in our plight, as other professionals including bank employees, soldiers, magistrates, teachers and civil servants do. Acting in this way, we can reaffirm that we do not believe that we are a cartel, we are a specific group of professionals, where our only weapon is our professional conscience. We know that we were forgotten by the governors of our nation and that we are today in the fourth position in the healthcare system, where the first place is taken by financing, the second by politic interests of the state, the third by the people and finally the fourth by the physician, totally disrespecting the normal sequence, that should be more just and less directed to political and financial considerations. Thus, we will unite even more. Our shout will echo in all corners of Brazil where there are physicians and our petition one day will be heard and with this, the Brazilian people will have a more dignified

and just medical system, without detrimental interference from the bureaucrats.

Marcelo Matos Cascudo , member of BSCVS Board - Natal-RN

## Some anatomic differences of the cardiovascular system of interest in experimental heart surgery

Heart surgery has evolved considerably over the last fifty years and frequently experimental models are utilized for the development of new techniques and curative procedures in clinical and surgical cardiology. The heart surgery story is accompanied by experimental research, including, for example, the different techniques of heart transplantation, cross-circulation, hypothermia, myocardial revascularization techniques, innumerous procedures for the correction of heart defects, cardiopulmonary bypass and varying experimental studies aiming at treating lifethreatening heart insufficiency. Recently we followed the brilliant work of Dr. Juan Mejia and his multidisciplinary group in the 2nd Brazilian Workshop of heart transplantation in Fortaleza. Ceará, in which practical courses on the surgical techniques of experimental heart and lung transplantation were given, as well as the demonstration of different artificial heart models. For this, pigs, cattle and dogs were utilized. With the large number of experiments into heart surgery and the resulting publications, we would like to highlight some significant anatomic differences among the principal types of animals of experimental interest with the aim of guiding surgeons, not only in performing the procedures, but also in the correct anatomic nomenclature to write scientific articles.

The first great difference between man and the aforementioned animals is that these animals are quadrupeds an arrangement that alters the disposition of the anatomic structures. Thereby, the heart is in a position in the thorax in such a way that the right ventricular border corresponds with the cranial plane and the left ventricular border to the caudal plane. Thus, the great vessels and the vena cavas are positioned in a cranial or caudal direction for which reason they are called cranial vena cava and caudal cava vein (and not superior and inferior). Another difference in the hearts of these animals compared to human beings, is that the heart accompanies the sternum, which is wedge shaped, an

organ is flattened on both sides and rotated approximately 90° to the left. Thus, the right atrium and the right ventricle are found on the side of the cranium and to the right of the body and the left chambers are on the tail side and to the left of the body. The position of the heart can vary with the different species and knowledge of anatomic topography makes an adequate approach to the thorax easier. The animals mentioned earlier have thirteen pairs of ribs but pigs can have fourteen pairs. The heart is located between the 4th and 6th intercostal spaces in dogs; between the 3rd and 6th intercostal spaces in pigs, between the 3rd and 5th intercostal spaces in cattle and between 2nd and 5th intercostal spaces in sheep.

The pulmonary trunk and the aorta have topographies similar to man, but in ruminant animals (such as cattle, goats and sheep) the aortic arch is short, which makes its access difficult. Also, in dogs and pigs the brachiocephalic trunk and the left subclavian artery emerge from the ascending aorta, while ruminant animals only have the common brachiocephalic branch, which ramifies into the left subclavian artery in the cranial portion of the thorax. In pigs and ruminant animals the left azygos vein is a large vessel that flows into the caudal vena cava above the coronary sinus, which is not true of dogs, because they have a right azygos vein which flows to the cranial vena cava.

Identification and isolation of the left azygos vein is extremely important in transplantations as well as in other procedures using cardiopulmonary bypass, as sometimes catheterization of this vessel for venous drainage is required. The right azygos vein does not exist in pigs that have the costocervical vein (ruminant animals have this too), which joins to the cranial vena cava at the base of the heart.

In respect to the coronary artery circulation, the main difference occurs in terms of nomenclature. In animals, the vessel corresponding to the left anterior descending coronary artery is called the paraconal interventricular trunk of the left coronary artery. In the sub-sinuous interventricular groove there is the sub-sinuous interventricular trunk. The left coronary artery is dominant in most cases but the dominance is bilateral in pigs.

There are innumerous anatomic particularities in the different species of animals and to describe them all in detail in this article is not our intension. However, we hope that the few details discussed here are useful as a guide to surgeons in their experimental research.

James Newton Bizetto Meira de Andrade Veterinary doctor – Master in pathology - PhD in surgery. Curitiba-PR - E-mail: jamesvet@bsione.com.br