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## **ROBOTIC SURGERY, CAN WE LIVE WITHOUT IT?**

Cirurgia robótica, devo abrir mão?

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All of us are being witness of radical change in health assistance: we are living an technological invasion, first in administrative processes and, afterwards, in outpatient care, in clinical controls of chronic diseases, in prevention, in health promotion, in rehabilitation and distance care. Data of patients based in computers and electronics communication became essential to the appropriate medical assistance in our time. At the words of former president of Intel Andrew Stephen Grove: "Technology occurs. It is not good. It is not bad. The steel is good or bad?"

The development of medical computers occurs, and at unprecedented speed. Such amount of information requires extensive reflection, broad spectrum vision and guidance of the professionals involved. The computers already dictate rules, avoid errors, guide attitudes. They facilitate and improve quality service, strengthen decision and planning, and, above all, provide basis for research. The medical computers are present in all the theoretical and applied issues of medicine today.

The surgical field was the last border cleared by mechatronics. The surgery of minimum invasion put physically away the surgeon from surgical field. With an optical and an instrument intermediating the movement of hands of operator, was obvious the need of computer program to help surgical work. The surgery with robot will go, therefore, beyond of laparoscopic surgery: consists of a master-slave system with the command from a console with mechanical surgical handles and automated arms, with repeated movements of the wrist, on an island close to the patient. The robot took its place in all institutions committed with the surgery with minimum invasion.

With the robot, we can see more and have better movements in smaller spaces, better cutting and sewing, better sealing and going further. The robotics optical system can see and transmit images better that my eyes; with articulated forceps, it can be safer and move better that my hands; filters redundant movements with security procedures that prevent any human tremors and fatigue. I have everything available for long periods in surgical work; I have everything as weapons to better serve my patient.

Today I communicate better, I go around better on the world, I know where I am better than before, with precise coordinates. Is not this better than before? To remove an organ by a natural hole is not better that to invade a healthy tissue? The appeal to the excess is large: it is not an easy task to understand and dominate such amount of information. The laboratory should be the path to introduce these new technologies. But the tool is there, in use, and the doctor must exercise its duty as an expert in disease, in treatment applying the best to ensure to the patient the maintenance of his/her welfare, good social life and integrity of health.

Can I live without using the robot?