Prostate cancer diagnosis based on sonoelastography

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Prostate cancer is a serious disease which affects millions of men around the world. Both in Peru and in the US, it is the second cancer with the bigger number of deaths, after lung cancer. Even though there are prevention methods for early cancer diagnosis, they are less specific and sensitive. Consequently, repeated biopsies are required to be performed in order to confirm the diagnosis. These problems lead to search new detection methods which must be effective and non-invasive.

This project continues with the research conducted by the Medical Imaging Laboratory (LIM)–PUCP jointly with Rochester Center for Biomedical Ultrasound (RCBU) about the usage of sonoelastography for cancer diagnosis with clinical application in prostate. The project is focused on two specific areas: 1) development of experimental capacity to acquire sonoelastography images by using a research ultrasound; 2) development of new algorithms to interpret these images clinically. Experimental results obtained in LIM–PUCP shall be validated with the results of RCBU in New York.