Reading: Diagnosis part 2

Making a correct diagnosis is a very responsible task any time a patient consults a physician, regardless of the supposed seriousness of the symptoms. Forming the right one will allow the patient to recover quickly or might even save his or her life, whereas making a mistake might lead to dramatic consequences.

Centuries ago, when physicians had very primitive tools at their disposal or had none at all, taking a patient's medical history was sometimes the only way to identify diseases patients were suffering from. These days, however, there are many modern diagnostic techniques that utilize cutting-edge devices and tools, which help in diagnosis and keeping people healthy. Let's take a closer look at some of them.

The choice of a diagnostic technique depends on the symptoms a patient experiences. For example, if a female patient comes to consult a GP, concerned about a lump on her breast she discovered when she was performing self-examination, the GP will suggest doing a mammogram, which will allow a specialist to determine what the lump is exactly and if any further tests need to be done. If the mammogram indicates the presence of a tumor, then a biopsy is needed to determine whether the tumor is malignant or not.

Biopsy is not the only technique employed in case of a suspicion of cancer. The use of a particular method or device is determined by the patient's symptoms, results of the tests and the location of the tumor. For instance, if there is a suspicion of a colon cancer, an endoscopy is performed, which involves inserting a tool directly into the organ (in this case the colon). In the case of women, a common screening method used in order to detect cancerous or pre-cancerous changes in the female reproductive system is called a Pap test, named after a Greek Doctor Georgios Papanikolaou, who invented it.

Some techniques are less invasive and do not require putting anything into the body or removing anything from it. For example, if doctors suspect a brain tumor, they will recommend tomography, performance of which will result in a detailed scan of the brain. Tomography belongs to a group of non-invasive techniques which use X-rays to produce images, called radiography, which also includes taking an X-ray in the case of a bone fracture. Although images produced through radiography are commonly referred to as 'X-rays', some professionals argue that they should be called 'radiographs', as 'x-rays' are just photons of energy and cannot be seen by the naked eye.

There are more non-invasive techniques used in case of various medical conditions. The electrocardiogram (ECG) is one of them. It is a test, which records the electrical activity of the heart, used to detect and study such heart problems as a heart attack or arrhythmia. Another one is a blood culture, performed to test for and find an infection in the blood caused by bacteria or fungi. Such tests are invaluable tools, as they make it possible to verify and confirm the doctor's diagnosis and thus assure the patient that the treatment is appropriate before the patient gives their consent for further treatment.

The vast majority of the aforementioned diagnostic methods are adopted in case of a
suspicion of a disease or disorder. Nevertheless, there are methods employed in less depressing, more optimistic circumstances, such as the use of ultrasound during pregnancy, to produce images of an unborn baby still in its mother’s womb.

Besides self-examination, all of the methods described in the article require a visit to a specialist clinic or a hospital unit and are sometimes an unpleasant or painful experience. Therefore, we should not forget to go for regular check-ups at local surgeries so as not to lead to a situation when they will be necessary.

**Discussion Questions**

Which diagnostic methods are you familiar with?

Which ones would you like to learn more about?

Have you heard of any other modern techniques not described in the article?