Magnetic Resonance Imaging

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**Introduction**

Magnetic resonance imaging is a powerful devices or a technique which is used to scan or mirror a person’s body. According to Pollacco (2016), magnetic Resonance Imaging (MRI) is a spectroscopic imaging devices or technique which is utilized in different medical settings to produce images of the inside of the human body (Forshult, 2007). The technique was started and developed after the World War II and has been used for decades in various medical settings to mirror a life of patient as medical treatment process. It is pointed out that magnet resonance imagines utilizes the radiology to form a picture of the body and physiological process of the body. It also detects the challenges and therefore, it can be used to monitor the process of treatment and also to offer proper examination for effective treatment of various conditions.

A study conducted by Möllenhoff, Oros-Peusquens, & Shah (2012), established that magnetic resonance imaging uses the principles of interaction of proton, strong magnetic field and radio frequency energy. Möllenhoff, Oros-Peusquens, & Shah ( 2012) stated that all hydrogen have atoms with nuclear pins which are detached to the magmatic resonance imaging and therefore, allows the devices to scan a body to show any condition in the body of any person. It mostly used to produce or show a detail picture of internal body. This allows doctors to diagnosed medical condition faster for efficient medical treatment. It also allows doctors to conduct body examination and detect any disease in the body. As stated by Pollacco (2016), the images being examined is viewed from the computer screen and therefore, the magnetic resonance imaging is a complete with a computer screen.

Researchers have established that MRI has several benefits and therefore, it should be used widely to conduct body examination. A study conducted by Nitz (2015), indicated that the use of MRI does not include radiation and therefore, it is less risky and therefore, it is likely to produce any allergic reaction to patients. The MRI produces extremely clear images of detail of the soft tissue, which cannot be achieved using other devices or technologies. The MRI also shows clear formation of tissues and therefore, it can shows inflammation and swelling of any part of the body subjected to scanning. A study conducted by Forshult (2007), also indicates that MRI shows an extreme clear of both cross and three dimension image of the body. The use of MRI allows doctors to view clear the information how the blood moves thorough the body tissues, organs and blood vessels to allow solving of problems related to blood circulation such as blockages.

Though it can be highlighted as one of the best devices for scanning the internal body, it has a number of drawbacks which should be considered. According to Möllenhoff, Oros-Peusquens, & Shah (2012), the usage of MRI takes a lot of time and the procedure is also expensive. It can be uncomfortable for some people due to the fact it produces claustrophobia during the usage process. It can therefore, cause arthritis pain as part of aging. It is also very expansive and scanning using the device can cost millions and this could mean that a number of patients cannot afford to get MRI scanning. It also get affected by any kind of movement therefore, the technique cannot be used for investigation some problems such as mouth tumours since coughing or swallowing of something can make the images produced by the device not clear. A study indicates that the bone and calcium are not visible when magnetic resonance imaging is used to scan a body (Nitz, 2015).

Research idnciates that there is clear different between MRI and X-rays in terms of procedures and the appearance of images. Overal, the main different between X-ray and MRI is the technique which is used. Spawls (2015) pointed out that X-ray uses radiation while magnetic resonance imaging (MRI) uses waves. It is means that MRI uses magnetic field and radio waves to make the tissue to vibrates and therefore, producing extremely clear images for efficient examination of any body condition. Both the MRI and X-ray can be used to examine internal part of the body. It is also pointed out that both techniques are also used to take picture of the internal body to identify any injury for proper medication. (Sprawls, 2015). Studies indicate that MRI has the ability to change the imaging plane taken without moving the patient and x-ray cannot. This can mean that MRI is a power tool compared to X-ray device in terms of producing images for examination of condition and treatment. Experiement conducted by Pollacco (2016), to determine the images structure produce by both MRI and x-ray indicates that MRI produces less bony structure compared to x-rays. This x-ray produces several bone structure and therefore, it is better for conducting examination of bone structure. The MRI also does not have any body effect but x-ray affect the DNS sequence and can cause some diseases if a patient is expaosed to a lot of radiation.

In conclusion, magnetic resonance imaging (MRI) is one of the latest technology which is used to examine internal body of patients for efficient medication. The technique is popular and it is non invasive imaging techniques which is used toproduce a three dimension image of the body for medication purposes. It is also uses the waves technology and magnetic making one of the less risky methods for tissue examination.

# References

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