
FMI ScinatCare CT16 的典型故障分析

摘要

CT(Computed Tomography),即电子计算机 X 射线断层扫描技术 (electronic computer X-ray tomography technique),又称 X 线 CT。本文试图从 CT 在使用过程中可能出现的故障出发,较为直观详细地讲述了 CT 在医院由于操作不当、软件升级或者硬件老化引起的问题及解决办法。由于近些年来医疗行业的迅猛发展,CT 产品也走在了世界的前列,但是因为 CT 设备的昂贵,当出现了问题时就会引发很多隐患。也会导致检查者引起恐慌,因此我们要重问题出发去寻找问题。CT 常出现的故障包括:CT 球管故障、准直器故障、滑环系统故障、高压系统故障以及软件升级故障等。而导致故障的原因有很多,一般包括长期使用仪器后有磨损,导致精确度不高;转动零件卡住;部件松动,断裂,弯曲;软件被破坏或刚升级新版本后导致 CT 机无法正常工作;电压较高,因此可能会发生高压故障;还有人因为操作或者维修不及时导致 CT 机器发生故障。所以由此可以看出 CT 机故障时有发生,因此要学会正确使用仪器,遇到问题时要找到其原因,对症下药,不能以偏概全的去解决问题,要学会举一反三。X 线 CT 扫描机能对被检查的人体进行横断体层成像,彻底解决了内部重叠显示问题,而且能将人体各种组织对 X 线的吸收系数以相当精确的数字表示出来,因而对软组织中的病变也能正常诊断。基于目前国内数字化医学影像设备的发展市场需求在不断增长,它的这些优点使其拥有极其广阔的市场。

关键词: CT 球管; CT 维修; 低压滑环; 球管老化

Abstract

CT (Computed Tomography), which is an electronic computer X-ray tomography technique, is also called X-ray CT. This article attempts to start from the possible faults in the use of CT, and describes the problems and solutions caused by CT in the hospital due to improper operation, software upgrade or hardware aging. Due to the rapid development of the medical industry in recent years, CT products have also taken the lead in the world. However, because CT equipment is expensive, many problems will arise when problems arise. It will also cause the examiner to cause panic. Therefore, we must start with the problem and look for problems. Frequent CT failures include CT tube failure, collimator failure, slip ring system failure, high-pressure system failure, and software upgrade failure. There are many causes of failures, including general wear after long-term use of the instrument, resulting in low accuracy; stuck parts in rotating parts; loose parts, broken and bent parts; and CT scanners fail to work after software is destroyed or new versions are just upgraded. The voltage is higher, so high voltage failure may occur. There is also human operation or maintenance not leading to CT machine failure. Therefore, it can be seen that CT machine failures occur from time to time, so we must learn to use the instrument correctly. When we encounter problems, we must find out the reasons. We should not be able to solve problems in a partial manner, and we must learn to use inferences. The X-ray CT scan can perform cross-sectional tomographic imaging of the examined human body, completely solves the problem of internal overlapping display, and can express the X-ray absorption coefficient of various tissues of the human body with fairly accurate figures, and therefore it can be used in soft tissue. The lesion can also be diagnosed normally. Based on the current growing market demand for digital medical imaging equipment in China, its advantages make it an extremely broad market.

Key words: CT tube; CT repair; low pressure slip ring; bulb aging

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