ICDの遠隔調査の効果

TRUST trial：植込み型除細動器の追跡監視は病院受診と比較し、家でモニターすることにより改善した

TRUST trial: Follow-up surveillance of implantable defibrillators is improved by home monitoring compared to hospital visits

植込み型除細動器（ICD）装着患者は遠隔監視および年一回の受診により安全にモニターすることができる―Lumos-Tはルーチンの外来でのデバイスフォローアップを安全に軽減することができる（TRUST：Lumos-T Safely Reduces Routine Office Device Follow Up）―とのトライアル結果がESC 2009で発表された。TRUSTは従来どおりのまたは遠隔監視による追跡調査を前向きに評価した初めてのかつ最大規模（患者1,443人を組み入れ）のスタディであった。患者・医師間の意思疎通に関係のない自動送信は、監視を維持し注目すべき有意なデータを迅速に送信できるため、臨床的に適切な介入ができる。遠隔監視を用いることにより、不必要な受信を省き、カレンダー上3ヵ月おきのチェックを厳守させることができた。TRUSTトライアルの結果、従来の診療のように患者自身が物理的に診察室に訪れる必要のある従来の診療と全く異なり、患者のデータがいつでもどこからでも遠隔監視できる可能性のあることが示された。しかし、従来の診療であれ遠隔監視であれ、カレンダーベースのチェックで検出できる重要なイベント数は総じて少ない。イベントは予定されたチェックとチェックの間に起こりがちであり、いつ発現したかは、心臓または装置の不具合を遠隔監視している方が（中央値<3日）、従来の診療（>30日）よりも遥かに速く検出された。

Full Text

Patients receiving implantable cardioverter defibrillators (ICDs) can be monitored safely through remote monitoring with only one annual follow-up visit according to results form the TRUST (Lumos-T Safely Reduces Routine Office Device Follow Up) trial presented at the 2009 ESC Congress.

The number of patients receiving life saving implantable cardioverter defibrillators (ICDs) is increasing and affects millions worldwide. These devices collect important system and patient data and monitoring their function is very important but is practiced inconsistently. Routine conventional follow-up visits every 3 to 6 months are recommended but, for some patients, this is sometimes difficult to adhere to. The problem with conventional follow-up visits is that no surveillance occurs in between visits. A means of intensive device monitoring without overburdening device clinics is desirable and this role is fulfilled by Home Monitoring.

Automatic transmission, independent of patient or physician interaction, has the ability to maintain surveillance and rapidly bring to attention significant data, enabling clinically appropriate intervention. This form of technology was tested in the TRUST (Lumos-T Safely Reduces Routine Office Device Follow Up) trial. TRUST is the first and largest study (enrolling 1,443 patients) prospectively assessing follow up both conventionally and with remote monitoring.

This current report shows that patients could be monitored safely with only one annual scheduled hospital visit and three monthly checks performed via remote monitoring. Remote monitoring cut out unnecessary hospital visits by almost a half. The use of remote monitoring secured greater follow-up adherence to the three monthly calendar based checks. The TRUST trial showed patient data may be monitored remotely anytime and from anywhere, as opposed to in the conventional care which relies on patients to present themselves physically in their physician's office. However, calendar based checks overall, whether conventionally or remotely, picked up few important events. These were more likely to occur in between scheduled checks, and when they occurred were detected much faster by remote monitoring (median <3 days) of cardiac and/or device problems compared to >30 days with conventional care.

The TRUST trial proves that remote monitoring provides physicians with an important tool for managing patients with implantable device therapy efficiently. It performs daily surveillance, helps to maintain continuity of follow up, and identifies the exceptional group of patients requiring in-clinic attention. Patient convenience is improved since unnecessary follow-up visits are avoided and necessary in-office evaluation is facilitated.

Niraj Varma, M.D., TRUST principal investigator, stated at the ESC Congress that: "The data demonstrates yet another benefit that Home Monitoring brings to patients, as well as physicians." Dr. Varma continued, "Based on the results TRUST, a large-scale clinical trial, I believe that remote monitoring may improve physician's ability to care for patients with implanted cardiac devices and enhance patient safety."

The technology tested was Biotronik Home Monitoring, an automatic, wireless system that performs daily telemetric surveillance of the patient and the technical status of the implanted device, without requiring patient activation.

Conference News