自傷行為に関する新たな知見

青年期に自己埋め込み（embedding）障害として顕性化した自殺関連行動は放射線科医により診断治療される

Suicide related behavior manifested as self-embedding disorder in adolescents is diagnosed and treated by radiologists

青年期に新たに出現した異なった型の自傷行為が、放射線科医のチームによりRadiological Society of North America（RSNA）学会で初めて述べられた。自己埋め込み（embedding）障害と名づけられたこの疾患の患者は、異物を軟部組織に埋め込む。研究者らは15～18歳（17歳が圧倒的に多い）の少女10人における19のエピソードを調査した。90%の少女は自殺念慮を訴え、70%は埋め込み行動を繰り返し回数とともに埋め込む物はより大きく多くなった。有意な慢性的虐待（身体的および性的虐待）後の外傷後ストレス障害がこれらのティーンエイジャーの一般的な特徴であった。小児インターベンション放射線科医が超音波およびまたは透視下でこれらの患者に埋め込まれた52の異物を取り除いた。この埋め込まれた異物は金属針、ステープラーの針、紙クリップ、ガラス、木片、プラスチック、鉛筆の芯、クレヨンおよび石などであった。埋め込むものは長さが2～160mm、幅は0.5～3.0mmであった。埋め込む場所は首、腕、手、足首および足であった。除去作業はほとんど瘢痕を残さない小さな皮膚切開にて行われ、全ての症例において破砕や合併症を伴うことなく成功した。

Full Text

A newly emerging, distinct form of self-mutilation among adolescents was described for the first time by a team of radiologists at the annual meeting of the Radiological Society of North America (RSNA). This condition, termed self-embedding disorder, involves insertion of foreign bodies into soft tissues.

"Radiologists are in a unique position to be the first to detect self-embedding disorder, make the appropriate diagnosis and mobilize the healthcare system for early and effective intervention and treatment," said the study's principal investigator, William E. Shiels II, D.O., chief of the Department of Radiology at Nationwide Children's Hospital in Columbus, Ohio.

Self-injury, or self-harm, refers to a variety of behaviors in which a person intentionally inflicts harm to his or her body without suicidal intent. It is a disturbing trend among U.S. adolescents, particularly girls. Prevalence is unknown because many cases go unreported, but recent studies have reported that 13 to 24 percent of high school students in the U.S. and Canada have practiced deliberate self-injury at least once. More common forms of self-injury include cutting of the skin, burning, bruising, hair pulling, breaking bones or swallowing toxic substances. In cases of self-embedding disorder, objects are used to puncture the skin or are embedded into the wound after cutting.

The behavior had a number of other unique characteristics, Dr. Shiels said, the most troubling of which was a close relationship with suicidal ideation or behaviors. For example, he said, "one girl wrote 'kill me' in blood on her arm and then embedded a foreign object in her bicep."

Ninety percent of cases voiced suicidal ideation and 70% have repeated the behaviors with increasing larger and more objects. Post-traumatic stress disorder following significant chronic abuse (physical and sexual abuse) was a common feature in these teens. The 10 children included in the study shared histories of physical or sexual abuse and all were in either group homes or foster care.

Dr. Shiels and colleagues studied 19 episodes of self-embedding injury in 10 adolescent girls, age 15 to 18. Using ultrasound and/or fluoroscopic guidance, interventional pediatric radiologists removed 52 embedded foreign objects from nine of the patients. The embedded objects included metal needles, metal staples, metal paperclips, glass, wood, plastic, graphite (pencil lead), crayon and stone. The objects were embedded during injuries to the arms, ankles, feet, hands and neck. One patient had self-embedded 11 objects, including an unfolded metal paperclip more than six inches in length.

Ultrasound guidance allowed the researchers to detect the presence and location of wood, crayons and plastic objects, not detectable on x-ray examinations. Removal was performed through small incisions in the skin that left little or no scarring and was successful in all cases, without fragmentation or complications.

"This technique offers surgeons and emergency physicians a safe and effective alternative for removal of foreign bodies, including objects at risk for fragmentation during traditional operative techniques," said co-author Adam Young, B.S. "The small incision minimizes scarring and deformity, which is key for the self-esteem of this unique, high-risk group of patients."

The patient profile "suggests this is a discrete entity," Dr. Shiels said. "We couldn't find it anywhere in the literature. We have started a web-based, secure registry for physicians to submit their own cases."

Co-authors are James Murakami, M.D., Brian Coley, M.D., and Mark Hogan, M.D.

RSNA2008特集

Cardiology

ポータブルCTにより脳卒中後の生存の可能性が高くなる

fMRIにより慢性脳卒中リハビリテーションの脳への効果が画像化される

Oncology

乳房小線源療法はインプラント硬化のリスクを軽減する

MRI検査で発見された乳房病変の特徴付け

検出困難な乳がんの画像検査

新たな画像診断法により小さな乳房腫瘍を検出できる

Psychiatry

自傷行為に関する新たな知見

fMRIは記憶抑制の理解に役立つ