

Public release date: 28-Sep-2008

Contact: Lucy Goodchild

l.goodchild@sgm.ac.uk

44-118-988-1843

[Society for General Microbiology](#)

Deadly rugby virus spreads in sumo wrestlers

Rugby players may get more than just the ball out of a scrum – herpes virus can cause a skin disease called "scrumptox" and it spreads through physical contact. Researchers have studied the spread of the disease among sumo wrestlers in Japan and have discovered that a new strain of the virus could be even more pathogenic, according to an article published in the October issue of the *Journal of General Virology*.

"Scrumptox", or *herpes gladiatorum*, is a skin infection caused by the herpes virus, which can cause coldsores. It is spread through direct skin-to-skin contact so it is common among rugby players and wrestlers. Symptoms can start with a sore throat and swollen glands and the telltale blisters appear on the face, neck, arms or legs. The disease is highly infectious, so players who are infected are often taken out of competition to stop the virus from spreading.

"Scientists in Japan believe that a strain of herpes virus called BgKL has replaced the strain BgOL as one of the most common and pathogenic, causing a skin disease in sumo wrestlers," said Dr Kazuo Yanagi from the National Institute of Infectious Diseases in Tokyo, Japan. "We wanted to see if this is the case, so we studied the spread of the disease in sumo wrestlers in Tokyo."

The researchers looked at samples taken from 39 wrestlers diagnosed with *herpes gladiatorum*, who were living in 8 different sumo stables in Tokyo between 1989 and 1994. Tests showed that some of the cases were primary infections, being the first time the wrestlers had been infected. However, in some cases the disease had recurred several times.

"Herpes virus can hide in nerve cells for long periods of time and symptoms can reappear later," said Dr Yanagi. "Our research showed that the BgKL strain of herpes is reactivated, spreads more efficiently and causes more severe symptoms than BgOL and other strains. This is the first study to suggest that the recurrence of *herpes gladiatorum* symptoms in humans may depend on the strain of virus."



Professional sumo wrestlers live and train together in a stable called a heya. This makes studying the spread of herpes virus easier. Their living arrangement suggests that the source of primary herpes infections among sumo wrestlers in each stable was their fellow wrestlers.

"Two of the wrestlers died as a result of their infections, so cases like this do need to be investigated," said Dr Yanagi. "This research will aid future studies on herpes and may help identify herpes genes that are involved in recurrence and spread of the disease. We hope it will also contribute to the development of medicines to stop the disease from spreading and recurring in infected patients."

###
