related. The first case involved a severe soft-tissue infection associated with CA-MRSA. Clinicians should be aware of the circulation of CA-MRSA in Colombia.

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LETTERS

Live Nativity and Brucellosis, Sicily

To the Editor: Worldwide, brucel-
losis remains a major zoonosis and an
important cause of travel-associated
illness (1). Brucellosis is transmitted
to humans through the consumption of
infected, unpasteurized, animal-
milk products; direct contact with
infected animal parts; or inhalation of
infected aerosolized particles. We
report an outbreak of brucellosis in a
small village of the Ionic coast of
Messina province (eastern Sicily).

In 2003, health authorities in the
Messina province were notified of 29
cases of brucellosis; 18 of the patients
were members of 9 different families.
All patients had observed a Nativity
pantomime that used live animals and
was organized by the local popula-
tion. Nativities in Sicily last ≈1
month, during which the sheep are
milked, cheese and ricotta are pro-
duced, and these products are sold or
offered fresh to tourists. All 29 patients
had consumed dairy prod-
ts: tuma cheese by 29 (100%) and
tuma and ricotta by 16 (55%). No
other risk factors for brucellosis were
reported. Symptoms appeared after a
median of 45 days (range 30–70). Eight
patients were children (3 male),
and 21 were adults (10 male).
The median age of the children was 10.5
years (range 6–13) and of the adults,
42 years (range 16–67). Hospitalization was required for 5
patients. For 2 adults, brucellosis was
complicated by spondylitis.

The real extent of the outbreak was
likely large because in Sicily ≈60% of
cases may go unreported. Further-
more, we report only the cases that
occurred in the villages of Messina
province and that were reported to
health authorities; but tourists from
many other areas in Italy and some
from outside Italy generally attend
such events. Southern Italy has com-
monly been implicated as a venue for
tavel-associated brucellosis (2).

In Italy, the overall incidence of
brucellosis has gradually declined in
the past 30 years, especially in north-
eral Italy, where the disease is now
reported only sporadically. This trend,
however, has led to an increase in the
percentage of total cases in Italians
reported from the southern provinces
of Calabria, Campagna, Puglia, and
Sicily; of the 520 cases reported in
2003, 488 (93.8%) were reported
from 4 southern regions, compared
with 63.7% in 1994. Sicily alone
reported 57.6% of the 2003 cases and
for the past decade has had an average
annual incidence of >100 cases per
million (1, 3). The disease is almost
always caused by Brucella melitensis
(4). The southern localization of the
disease in Italy is obviously related to
the relative high prevalence of infec-
tions in sheep and goats (5). Ovine
and caprine population density is
higher in the southern regions of Italy
than in the rest of the country (6).

The Italian brucellosis eradication
plan consists of a test-and-slaughter
practice. However, in Sicily a vacci-
nation campaign with B. melitensis
Rev.1 strain has been started. In 2003,
≈99% of the stock farms were tested,
and ≈18% of them were infected (3).
The major problems reside with small flocks that undergo frequent transhumance (seasonal movement of herds between regions with different climates) in isolated regions where testing by veterinarians is difficult or avoided by the owners (a typical drawback of test-and-slaughter practices).

Technically, ricotta is not a cheese, but rather is a cheese by-product. The name "ricotta" means cooked again, referencing the production method. Ricotta is made from whey drained from tuma, provolone, and other cheeses. Heat is then used to separate, by precipitation, the remaining albumin from the whey left after making lactic acid/rennet-precipitated cheeses. It is eaten as is or used for food seasoning (e.g., classic Italian lasagna and ravioli). A cream made of sieved ricotta and sugar is used to prepare many desserts, like cannoli and cassata cake. Being cooked 2 times, ricotta should not contain viable *Brucella* organisms; however, shepherds sprinkle fresh milk on wicker baskets to refresh the ricotta they contain, thereby contaminating the product.

Tuma is a typical Sicilian fresh cheese made from sheep’s milk. It has a cylindrical appearance and is sold fresh, no more than 2 days old. It has no crust, and the dough is white or ivory-white without holes. The texture is very soft, tender, and wet. It is generally served with ham, wines, and fruits as a table cheese.

Tuma cheese should be considered as the major vehicle of *B. melitensis* infection in Sicily. Although most similar dairy products produced in Sicily are derived from organized dairy companies and have been pasteurized, traditional delicacies from small villages may still cause brucellosis outbreaks.

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