A learner-centric microbiology education framework

Insect bites

Mummy: I have a bug attached to the back of my ear!



"20070705-07 - 4th of July at Eric Axilbund's - IMG_2799 - Carolyn's tick bite" by Claire CJS is licensed under CC BY-NC-SA 2.0.

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Lola is a 9-year-old girl who has been going to the Scouts every weekend since she was little. She loves nature and spending time taking long walks in the countryside.

Today, it is Saturday, and she has not been able to go on a night adventure to see the stars because she woke up with a fever of up to 39°C. Her worried parents decided to take her straight to the emergency room.

On arrival, they use a thermometer to take her temperature and find that it has risen to 39.3°C. However, Lola says that she wants to go to the Scouts and that surely in the mountains, where it is colder, her fever will come down because she feels great.

After waiting a long time in the waiting room, she hears her name over a megaphone and enters with her parents into a small room where a doctor is waiting for her.

'Good morning Lola, how are you? Why do you come to visit me on a Saturday when the weather is so nice outside?' she asks smiling.

'Well, I don't know, it was my parents who said I was ill. I should have been on an excursion to the mountains last night!' she answered indignantly.

The worried parents tell the doctor that it is very rare for Lola to have a fever, and when she is ill, the most she has ever had is 38°C.

The doctor asks about her usual activities. Her parents tell about her regular visits to the countryside and her contact with animals. They mention that they have two well-vaccinated dogs and that they have been doing activities at a farm school last weekend.

The doctor then removes her clothes and examines her for the source of the fever. She observes Lola scratching her head behind her ear. When she moves her hair, she notices a small, fat, black bug clinging tightly to her head: *it is a tick*.

The doctor explains to Lola and her parents that it is usual during these spring days when we go on a field trip to rest in the shade of a tree on the grass to eat a snack. Sometimes that moment of rest and disconnection is the moment when bugs as small as ticks get a hold of us without us realising it.

She explains to Lola that ticks can cause illnesses associated with fever, like the one she has now, and make her more and more ill. For this reason, the first thing to do is to remove the tick with tweezers.

She also told her that it would be necessary to take blood, to find out if the tick that had bitten her was diseased or if it was simply a healthy tick that would not cause anything. Lola, frightened, nods and asks her not to hurt the tick.

Her anxious parents ask how serious the tick's condition is. The doctor says that the most important thing is to keep an eye on Lola, who is in excellent general condition despite the fever. In any case, after the various tests, she will start treatment with an antibiotic and will need to be closely monitored by her paediatrician in the coming days.

Lola is curious about how she can continue to go to the countryside with her scout group and not be attacked by a tick again. The doctor explains to her that the most important thing is to make sure that her dogs are tick-free and to put a repellent on them to prevent ticks from attaching themselves to them when they go out in the field.

On the other hand, the easiest and most important thing she can do to prevent a tick bite is to wear white clothes with long sleeves and long trousers during the spring and summer season. This will make it easy to see the black tick if it attaches itself to her. It is also advisable to impregnate the clothing she wears on Scout outings with a product containing at least 0.5% Permethrin.

She also says that, when she returns home after being in contact with animals and nature,

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it is important to check her body, especially the areas covered with hair which can hide the tick,

Lola nods and promises the doctor to do everything he tells her to do if she can be with the Scouts again when her fever is gone.



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