



## COMPREHENSIVE PAIN PROGRAM

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March 30<sup>th</sup>, 1998

Dr. Lee Ann Gallant  
302-2797 Bathurst Street  
Toronto, Ontario  
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Dear Dr. Gallant:

RE: Lisa Shore  
MRN: 264 9669

I saw urgently this 10 y. o., right handed female in regards to her severe leg pain. On 11<sup>th</sup> February, 1998, she sustained a spiral non-displaced fracture of the right tibia. She had a cast and within 2 days she was complaining of severe pain and after four days the cast was changed to a wider one. Once the cast was opened, she experienced immediate relief of pain. In the cast she was fine, walking with crutches. One morning she woke up suddenly crying with pain. Since then she has taken a down hill course. Her first admission to the Sick Kids was on February 24<sup>th</sup>, 1998 at which time an epidural catheter was placed. She was pain free for 8 hours regarding the leg, but she was bitterly complaining of stabbing pain in the mid back, which resulted in discontinuation of the catheter. She was discharged on March 6<sup>th</sup>, 1998 almost pain free. Since the discharge she would experience acute stabbing pains, maximum lasting 5-10 minutes per day for the first week after discharge. She was able to walk non weight bearing on crutches. Unfortunately on March 11<sup>th</sup>, 1998 she fell on the floor and bumped her leg while she was in the cast. Since then she started experiencing severe stabbing pains.

Her second admission to Sick Kids, occurred on March 15<sup>th</sup>, 1998. She was discharged 10 days later on the request of the parents.

Since the incident of the fall on the floor her pain characteristics have changed quite significantly. Her pain is always steadily, rhythmically and predictably coming at night at about 8:00 - 9:00 o'clock. It is of sudden onset and it is accompanied by severe

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screaming, yelling and crying until at least 1:00 -2:00 o'clock in the morning. Finally, according to the mother as if "a switch is turned off " she stops screaming abruptly and falls asleep equally abruptly. Her regular bed time is 10:30 to 11:00. Since the fall, this has been disrupted. The family is overwhelmed by the pain. The husband will put the 6 and 8 y. o. to bed, while the mother will remain with the 10 y. o. daughter attempting to play games and puzzles to try to distract her.

It is remarkable, that according to the mother, she falls asleep in the middle of screaming, " knocked out" and sleeps without interruption until 10:00 am.

She has been off school since mid February 1998 one week after the fracture, but she has some homework done.

There are some pain spells during the day time every day, but they last maximum a few minutes.

Remarkably, during the interview, Lisa stated, when asked whether she has any other pains, that she also had left wrist pain, which came a few minutes before she was given a particular form with a body map ( standard process in our pain unit) to fill ! This pain in the wrist was rated as 2-3/10 during the interview.

She also indicated in the body map, that she had a little bit of right thigh pain, which came two to three days ago. She complains that the thigh pain comes in the superior part of the thigh, when she touches the thigh, and sometimes spontaneously.

Of course the area of concern is the right leg. In the body map she indicated she has pain from the knee down to the ankle and then to the toes ( see enclosed forms). The right leg pain was rated as 4-5/10 at complete rest and 10/10 upon touch.

Lisa was asked to fill the short form of the McGill Pain Questionnaire. She indicated that her pain is severe, throbbing, shooting, heavy and tender, while she used the word stabbing, sharp and splitting of moderate intensity.

From the past medical history it is worth reporting, that she had acute appendicitis 6 months ago. She has no history of migraines, headaches or abdominal pain. She was psychiatrically assessed in the Sick Kids Hospital, and the family was told, that " everything was normal".

Presently, she is on Gabapentin 200 mg tid and over the past seven days, Amitriptyline 5 mg at night.

During the interview, Lisa was a blond child with the leg in above knee cast elevated on her wheelchair. She was quite interested and absorbed in the conversation. However, on a number of occasions, when I indicated that I was going to examine her, she broke into acute crying spell, indicating that she had stabbing pains. On my prompt to settle, she would abruptly stop.

The examination was marred by profound pain behaviour.

My findings are extremely well outlined in the accompanying body map form. On the top left corner the maps and the drawings indicate where the patient drew her pain herself.

Of course, it was not possible to examine the casted leg. However, the sensory examination was profoundly remarkable, in the rest of the right side of the body. Touch was more or less properly preserved in the right thigh, as well as the distal toes that were uncovered by the cast.

However, pin prick examination demonstrated hyperalgesia to pin prick in the toes, in the thigh, as well as the right side of the face. At times the right upper extremity was hyperesthetic to pin prick or hypoesthetic. The phenomena were also seen in the posterior aspect of the buttock and thigh.

Phenomena to cold sensation as tested by a cold roller were quite variable. The thigh and the right upper extremity were hyperesthetic to cold and surprisingly the right face was hypoesthetic to cold. In the toes the sensation to cold was preserved equal bilaterally.

Vibration sense was also asymmetrically affected. It was increased in the right foot and the right face, but decreased in the right hand.

Some of the findings were consistent in terms of the toes. I examined Lisa repeatedly and I also allowed her to examine herself with the pin wheel over all of her toes. The conclusion was, that there was consistent hyperalgesia to pin prick at least in the first four toes, with the exception of the small toe.

I had the opportunity of reviewing the bone scan of February 19<sup>th</sup>, 1998. There was quite a bit of increased uptake in the delayed phase around the tibia.

#### **IMPRESSION/ RECOMMENDATIONS**

It may be quite possible, that Lisa experienced a neuropathic pain injury based on the mechanism of her injury, for example inversion of the foot, could stretch the sural nerve or the lateral peroneal and can produce a neuropathic pain syndrome (causalgia).

However, the expansion of the sensory abnormalities in the right side of the body, are more the product of the hysterical "conversion reaction". We believe very strongly in this unit, that certain nociceptive and particularly neuropathic pain syndromes have a central counterpart in the sense, that there is a neurobiological substrate at the level of the brain, primarily due to emotional factors and personality traits.

There is no question, that her present pain pattern is highly non physiological. Any kind of pain pattern, that has such a dramatic appearance around the clock, at the specified time of the day, with associated very specific behavioural patterns, is much more likely

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to be non physiological than physiological. I indicated my feelings very strongly to the mother, who did not seem to be very happy with that particular indication.

This is not to say, that Lisa did not start with a neuropathic pain syndrome, or does not have some ongoing neuropathic pathology. However, I think, the behavioural components superimposed on the original injury are extremely strong. I suspect the constitution of the family and the family psychodynamics and catering around Lisa's emotional needs have contributed to perpetuate this appearance.

My plans are as followed: I am increasing Amitriptyline gradually to 25 mg at night and I indicated, that she takes it at 8:00 pm prior to the onset of the screaming spell. She should continue also with Gabapentin 200 mg tid.

I offered an admission to Mrs. Shore and she was willing to take it. However, we ran into a very serious practical difficulty. The hospital is not a pediatric hospital, and I would not get permission to admit her. I am trying to make arrangements with Dr. Harvey's Rehab. facility at Hamilton Civic Hospital and I am awaiting for his response.

Thank you for the referral.

Sincerely yours

Angela Mailis, MD, MSc., FRCPC (Physical Medicine)  
Director, Comprehensive Pain Program  
The Toronto Hospital, Western Division  
Head, Division of Physical Medicine and Rehabilitation

AM/mk

encl./

cc: Dr. D. Harvey, Hamilton