Case Study

TAPE measures

WENDY ATKINSON DISCUSSES HOW KINESIOLOGY TAPING HELPED A CLIENT SUFFERING FROM MYOFASCIAL PAIN

This case study was undertaken as part of a research project while I was studying for a BSc honours degree at Middlesex University. The research project specifically reviewed the use of kinesiology taping (KT) in the treatment of myofascial pain.

CLIENT HISTORY

The client was a woman of 39, a PE teacher, presenting with right posterior calf pain. She reported the onset of symptoms during a run five days previously. She described feeling a sharp pain on the medial side of her calf, forcing her to stop mid-run. Following some calf stretching, she attempted to continue running but was forced to stop and walk home.

EXAMINATION: SUBJECTIVE ASSESSMENT

The subjective assessment involved taking a detailed history, including lifestyle factors, medical history, training regime and details of the presenting condition.

As part of this, I also questioned the client regarding her footwear and whether she had undertaken a gait analysis at any point. She confirmed that a gait analysis had been performed by a local running shop, using a treadmill and video assessment, which identified that she was a mild pronator and had bought shoes accordingly.

OBJECTIVE ASSESSMENT

On entering the treatment room, the client was limping. A postural assessment didn't reveal any asymmetry in general or any contributing factors to the injury. Some mild bruising was visible and the right calf appeared swollen in comparison with the left. Palpation revealed tenderness along the medial head of the gastrocnemius muscle.

A range of movement testing involved both plantarflexion movements where the muscle was contracted, and dorsiflexion movements putting the muscle in a stretched position. Active and passive ankle dorsiflexion produced moderate pain. Resisted plantarflexion of the ankle also reproduced the symptoms.

From my clinical examination, based on the above subjective and objective assessments, the client appeared to have a grade 2 gastrocnemius strain. This was further evidenced by the existence of some mild bruising and swelling, pain on stretch and contraction of the muscle, and tenderness on palpation.

Given the mechanism of injury and the presenting symptoms, I was satisfied that no further investigations or imaging was required.

TREATMENT

The client attended my clinic once a week, when kinesiology tape was applied to the right gastrocnemius muscle as detailed opposite.

With the client's agreement, no other treatment modality was applied. At each session she was asked to provide feedback of her symptoms and activity over the preceding week. The visual analogue scale (VAS) was used as the marker for pain, with

PICTURES: ISTOCK

the client giving a score between 0 and 10 (0 indicating no pain, and 10 unbearable pain).

TAPE APPLICATION

With the client's ankle placed in a dorsiflexed position and the toes extended, an 'I' strip was applied with no stretch of the tape. This started from the medial side, going over the achilles and across the area of pain, and finished through to the centre of the calf (photo, right).

Another smaller 'I' strip was applied across the area of pain with 75%-100% stretch of the tape, with no stretch at the ends (photo, far right).

SESSION ONE

On initial assessment, the client was observed limping and reported a VAS score of 5. KT was applied to the gastrocnemius and advice was given to rest, avoid all aggravating activities and to concentrate on maintaining as normal a gait as possible. The client was instructed to remove the tape after five days.

SESSION TWO

The client had complied with the advice and instructions given and reported a reduction in pain with a VAS score of 4. Her gait was improved but she still exhibited a slight limp, and bruising was still evident but beginning to fade. KT was again applied to the gastrocnemius in the same manner and advice given to continue to rest, avoid all aggravating activities and to continue to concentrate on maintaining as normal a gait as possible. The client was instructed to remove the tape after five days.

"Kinesiology taping had helped in reducing her pain levels and treated her injury. It had also given her more confidence to perform daily functions"

SESSION THREE

The client had complied with the advice and instructions given; her gait was now normal and the bruising had almost disappeared. She reported that it had not felt as painful during the week and the VAS score was now 2. As at the previous session, KT was applied to the gastrocnemius and advice was given to continue to avoid all aggravating activities. The client was instructed to remove the tape after five days.

SESSION FOUR

The client had complied with the advice and instructions given, and the bruising had now disappeared. Her pain had remained at 2 on the VAS scale and she had not experienced any twinges in her calf. She was now able to perform all daily activities without issue and a calf stretch was pain-free. Additionally, she was feeling confident about how the recovery from injury was progressing with the use of KT. As at the previous session, KT was applied to the gastrocnemius and she was advised to continue to avoid all aggravating activities. The client was instructed to remove the tape after five days.

SESSION FIVE

The client had complied with the advice and instructions given. She was now pain-free and reported that she had not experienced any issues during the previous week. As a result, I was not intending to apply the tape at this session, but the client said she would feel reassured if it were applied for one last session. As a result of this, KT was applied to the gastrocnemius again. She was advised that she could try some swimming to see how the calf felt. The client was instructed to remove the tape after five days.

SESSION SIX

The client had complied with the advice and instructions given and had been swimming on two occasions during the week without any issues or any adverse reaction the following day. Rehabilitation advice was then given for a graduated return to full sporting activity.

CONCLUSION

The overall feedback from the client at the end of the six sessions was that she felt that KT had helped in reducing her pain levels and treated her injury. It had also given her more confidence to perform daily functions. Furthermore, this case study demonstrates that KT, as a stand-alone treatment modality, can be effective in treating a calf strain and provided positive results of both physiological and psychological benefits. IT

Wendy Atkinson, BSc (Hons), MSST, is a sports therapist based in Ipswich. Running her own private practice, she also works as an SMA massage tutor, and with the Football Association and adult education as a first aid trainer and assessor. **wendyatkinson.co.uk**