Journal of Orthodontics, Vol. 32, 2005, 169–174

CLINICAL SECTION

The diary of an orthognathic patient aged 30¾

Tania C. Murphy
School of Clinical Dentistry, University of Sheffield, UK

This article reports on the experiences of an orthodontist who has actually undergone combined orthodontic and orthognathic treatment. The aim is to give the reader an insight into not only what we, the orthodontists, fail to tell our orthognathic patients, but also what they fail to tell us.

Key words: Orthodontics, orthognathic surgery

Received 22nd February 2005; accepted 29th April 2005

Introduction

At the age of 30, I was a third year orthodontic Specialist Registrar who decided to undergo a bimaxillary osteotomy to correct my Class III malocclusion. During this period, I kept a diary that recorded all the highs and lows that accompanied my 'new face'. Prior to being an Orthodontic Registrar, I had worked as a Vocational Trainee, spent a time in General Practice and spent 2 years as Senior House Officer in Oral and Maxillofacial Surgery, where I assisted on approximately one Orthognathic list a week. So when I decided to undergo my bimaxillary osteotomy I thought I had probably the most informed 'informed consent' a patient could have!

The aim of this article, therefore, is to give the reader an insight into not only what we fail to tell our orthognathic patients, but also what they fail to tell us.

'The case'

September 2001

In September 2001, I was just about to begin my second year of orthodontic training. I was happily married and a fairly well adjusted 29-year-old with a great social life when I was asked by my Consultant Maxillofacial Surgical colleague whether I had ever considered having Orthognathic surgery! I have to be honest, surgery had crossed my mind several times throughout my dental training, but for me it was the prospect of wearing fixed appliances that had prevented me from pursuing the matter further, *not* the prospect of having surgery. The more I thought about it, however, the more I realized that now was probably the right time.

Full orthodontic records were taken (Figure 1). These showed a Class III incisor relationship with a reverse overjet of 3 mm on a Class III skeletal base with an increased Frankfort–mandibular plane angle. My upper right central and lateral incisors had been previously lost. The central incisor had been replaced with a dental implant and the upper right canine had been camouflaged to resemble the missing lateral incisor. My lower centre line was displaced to the left by 3 mm.

Radiographs (Figure 2a,b) helped confirm the clinical diagnosis of a moderate Class III skeletal pattern with an ANB of –6°. My upper incisors were slightly proclined at 115° and my lower incisors were retroclined at 71°. Evidence of a previous dalliance with oral surgery, whilst I was a dental student, was also visible, with the presence of a titanium plate following a genioplasty to correct the asymmetry of my chin point.

November 2002

The orthodontic phase of my treatment progressed in a relatively straightforward manner. By November 2002, I was fully decompensated and ready for surgery. Figure 3 shows that, intra-orally, the arches had levelled and aligned, decompensation had occurred and my reverse overjet was now 6 mm. The upper right first premolar had been rotated and intruded so that it could be camouflaged at the end of treatment to resemble an upper right canine. The radiographs confirmed the decompensation and showed that my lower third molars were removed prior to the orthognathic surgery.

Address for correspondence: Mrs T. Murphy, Department of Orthodontics, Charles Clifford Dental Hospital, Wellesley Road, Sheffield S10 2SZ, UK. Email: tania.murphy@btopenworld.com

DOI 10.1179/146531205225021051

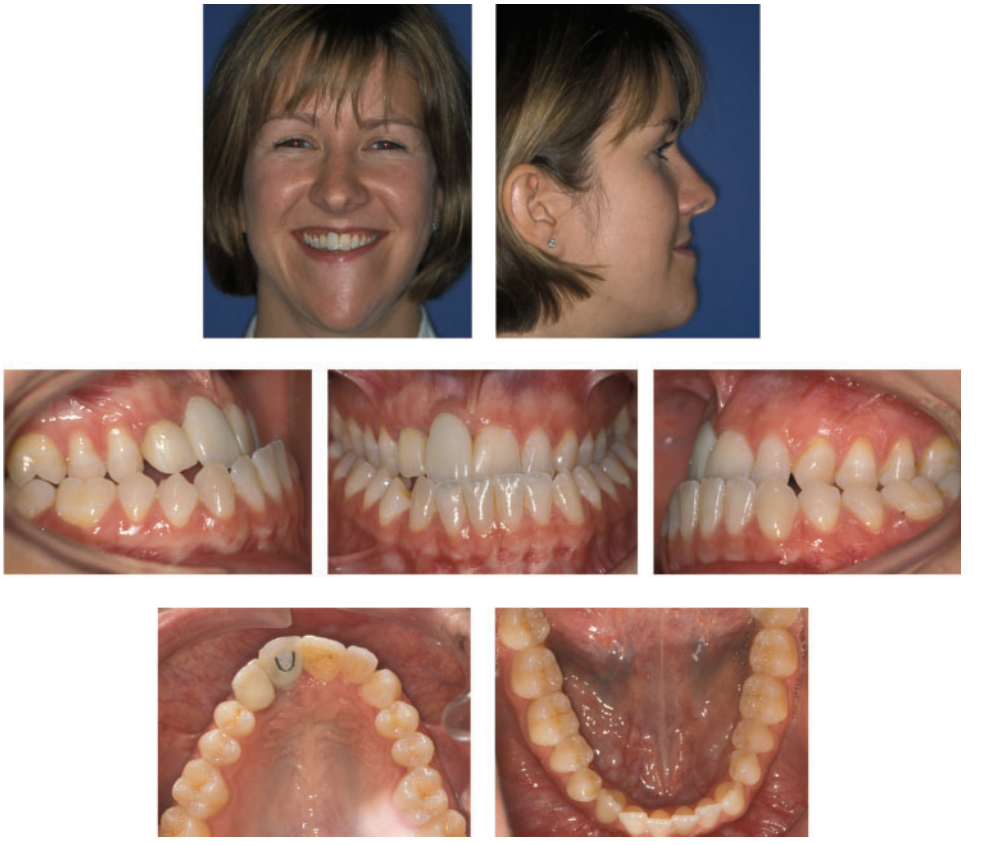


Figure 1 Pre-treatment extra- and intra-oral photographs

8 November 2002. I was fortunate enough to be able to spend the evening before my operation at home, although on the morning of 8th November 2002 I would gladly have written a cheque with as many zeros as required for my operation to be cancelled. However, in the name of consumer research I plucked up the courage and went for it!

Figure 4 shows the movements that were achieved. A Le Fort 1 osteotomy enabled my maxilla to be brought forward 6 mm and a bilateral sagittal split osteotomy allowed my mandible to be set back 3 mm, but also rotated to help correct the centre line discrepancy.

So what can I tell you that may make your patients better prepared?

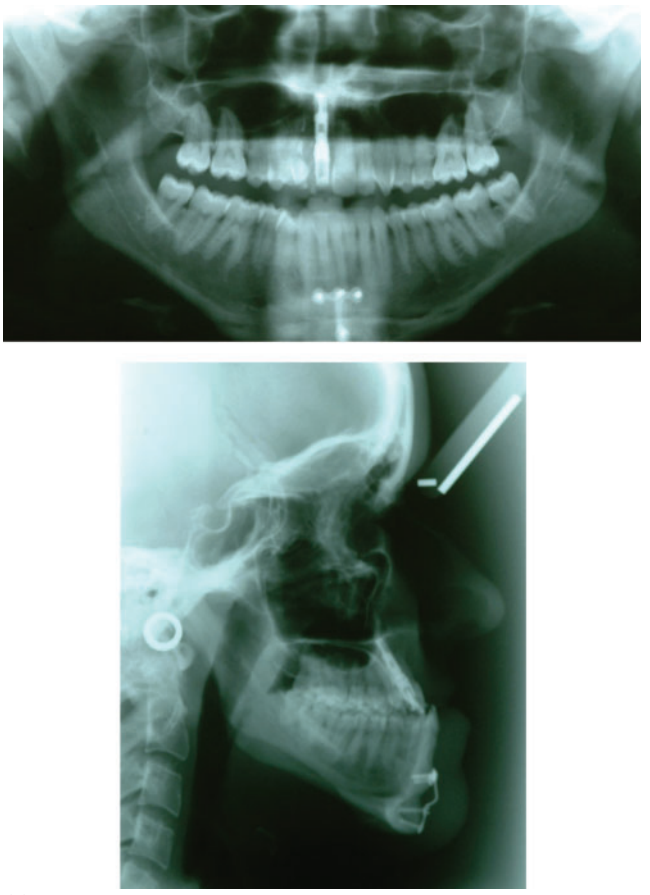
11 November 2002—3 days post-operatively. I left hospital 2 days following my operation. I was totally euphoric that I was still alive and couldn't wait to get home. I was oblivious, however, to the fact that 'day 3' was to follow. Several people had warned me that this would be my worst day. I really wasn't prepared for how low I would feel on that day and how much I would regret having put myself through surgery.

You look great!

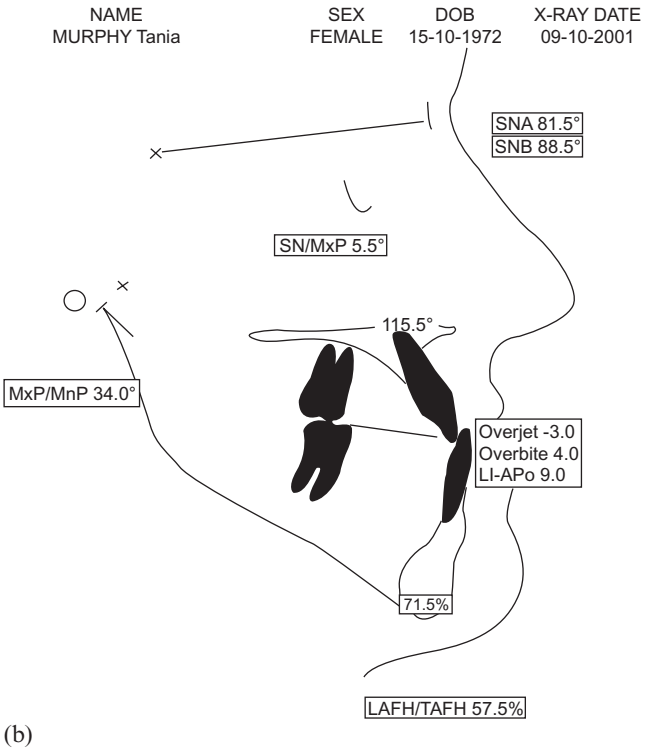
Figure 5 shows the photographs taken at my first post-operative review appointment. This is the appointment where everybody tells you that you look great! I know that as a clinician; I have been guilty of using this phrase. As a patient, however, 'great' would not be the adjective that would instantly spring to mind. This look is not what you underwent 5 hours of surgery for and you really can't see that it's going to improve. I think most patients, at this stage, are looking for reassurance that it is *going* to look great. It actually took a good few months for me to become used to my 'new face' and, although I was prepared for what I was going to see when looking in mirrors, the surprise of not recognizing yourself when catching a glimpse of your reflection in windows is something that I will remember for a very long time.

Nose

I knew that with maxillary surgery there was a possibility that my nose may flare and I had therefore asked my surgeon to place a cinch stitch. It soon became apparent that this was to be the least of my worries. My post-operative swelling produced a rather upturned and



(a)



(b)

lopsided nose, which during my initial recovery caused me to think that by correcting my Class III malocclusion I may have set myself up for a nose job! Thankfully the swelling subsided, as did my fears.

Food

I didn't get to see a dietician following my operation so I started off on a very soft diet of soup and porridge. After about 4 days my stomach really did think that my throat had been cut and I knew that I had to think of another way to feed myself. Following an inspirational visit to my mother-in-law I developed a very close relationship with my Kenwood blender, as I suddenly realized that if it could go in the blender it could be eaten! I think this was probably the turning point in my recovery, and I now advise all of my patients and their carers to invest in one before they undergo their surgery.

Paraesthesia

All patients are warned about the possibility of numbness following surgery. What I had failed to realize is that, during the first few days after the operation, a swollen, numb lip can quickly ulcerate as it rubs against a fixed appliance. I think patients should be advised to wear comfort wax on their brace for the first 2 weeks of their recovery to help prevent this.

Speech

At the time of my operation I was unaware that speech can change following surgery. Initially, I had great problems pronouncing some sounds, especially 'sh'. However, with repeated use, I'm pleased to say that my speech did improve quite rapidly. I feel that some patients probably don't even notice a change, but for others it appears that it may be one more challenge for them to face when they are already feeling incredibly low.

Figure 6 shows a list of key points that I feel should be discussed with Orthognathic patients prior to the commencement of their treatment.

When's it coming off?

By March 2003, I had turned into the average Orthognathic patient and was desperate to have my appliances removed. Unfortunately, being 'in the job' doesn't necessarily prolong compliance. It seems that most Orthognathic patients use up the majority of their goodwill during the surgical stage of treatment. Maybe

Figure 2 (a) Pre-treatment OPT and lateral cephalometric radiographs. (b) Cephalometric tracing of pre-treatment radiograph

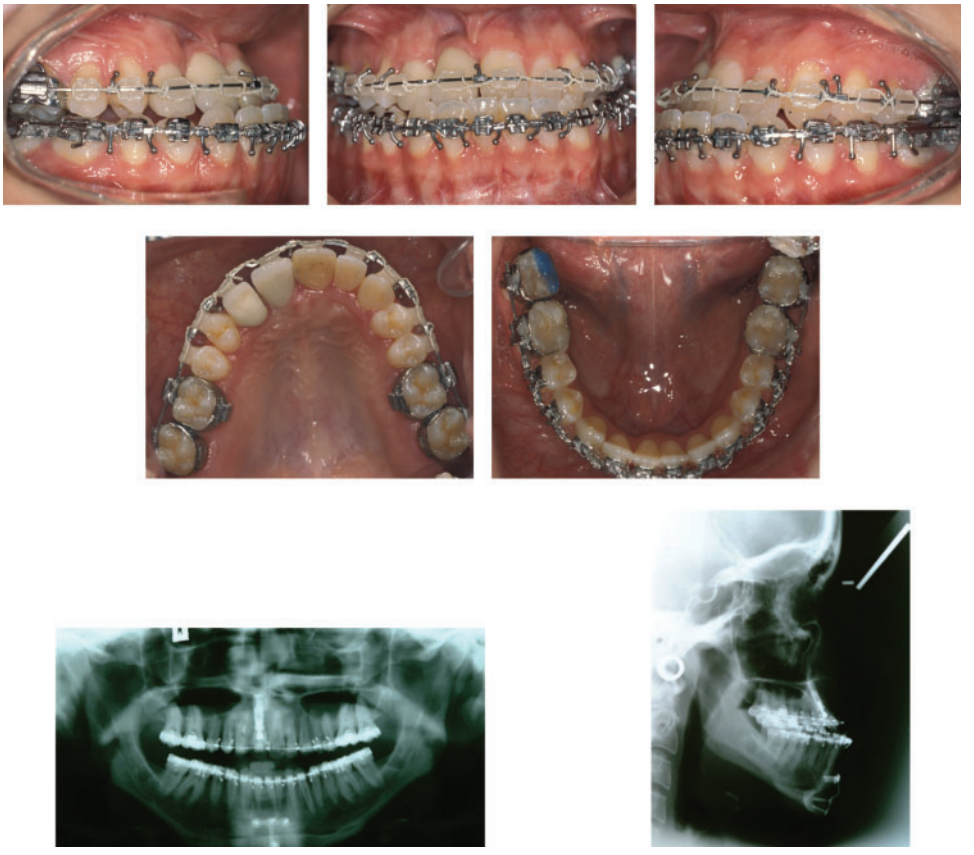


Figure 3 Pre-surgery intra-oral photographs and radiographs

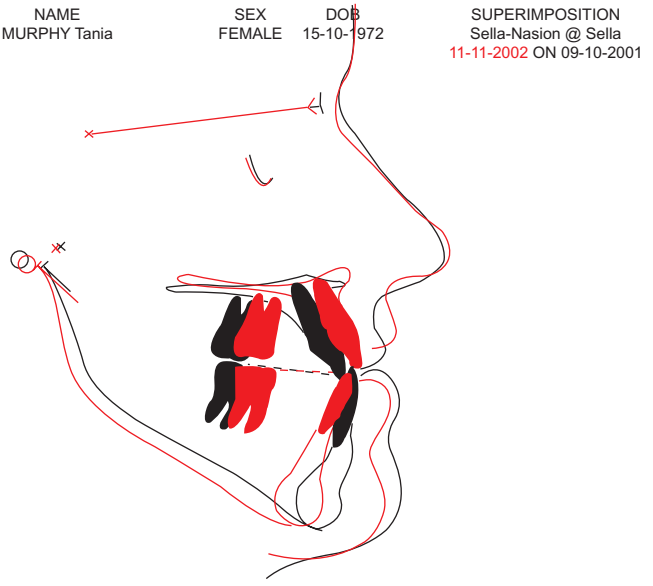


Figure 4 Cephalometric tracing superimposition showing the surgical movements

it would be of benefit to the patients to maximize the orthodontic phase of treatment pre-operatively. My appliances were finally removed in September 2003 and Figure 7 shows the end results.

So would I do it again?

Although I was a perfectly happy 29-year-old, I had always contemplated Orthognathic surgery, but had never felt confident enough to wear braces. Then I found myself with appliances on and heading towards a bimaxillary osteotomy. I can honestly say that, initially, I really did wonder what I had done. However, I look back now and can't believe I didn't do it years ago. I love the result and wouldn't hesitate in recommending it to my patients, although hopefully with more understanding than I did before!

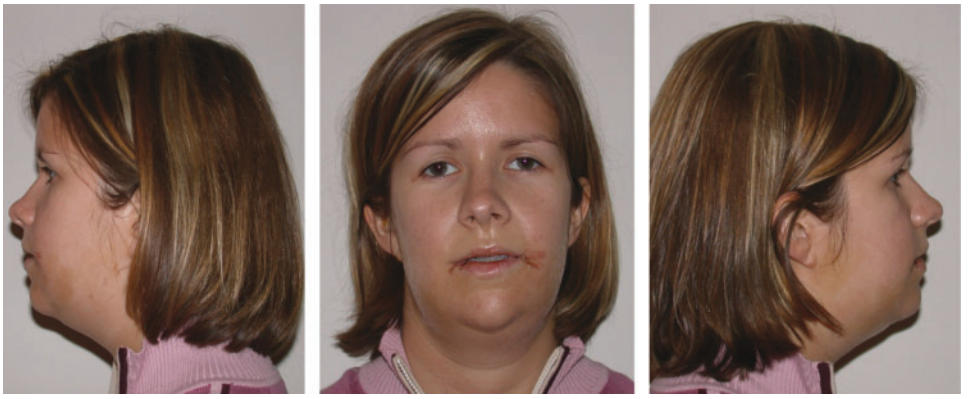


Figure 5 Extra-oral photographs taken at my first post-operative review appointment

Possible post-op points to discuss with Orthognathic patients prior to them commencing treatment:

- Swelling
- Bruising
- Nasal congestion
- Dry lips and facial abrasions
- Dribbling
- Sleeping sitting up for the first 2-3 weeks
- Possibility of problems sleeping
- Numbness (partial numbness may be permanent)
- Tingling sensation as the nerves begin to regenerate
- Pain in the jaw joints
- Possibility of altered speech
- Low feeling
- Soft diet
- Possible acne

Figure 6 A list of important topics to be discussed with potential Orthognathic patients prior to the commencement of their treatment

Shopping list for patients to use prior to their surgery:

- Plan for somebody to take you home.
- It's a good idea to have someone to stay with you to help out the first few days after your surgery.
- Make sure you have front-opening shirts or blouses to wear afterwards, as you won't want to wear something that must be pulled over your head.
- Soup – lots of different flavours!!!
- Microwave porridge
- A liquid multivitamin
- Some good DVDs as you may well be too tired to read
- Soft ice packs for the swelling
- Straws
- A blender
- Baby toothbrush
- Fluoride mouthwash
- Ice cream
- And any other food that is soft to eat that you think you may want!

Figure 6 (cont)

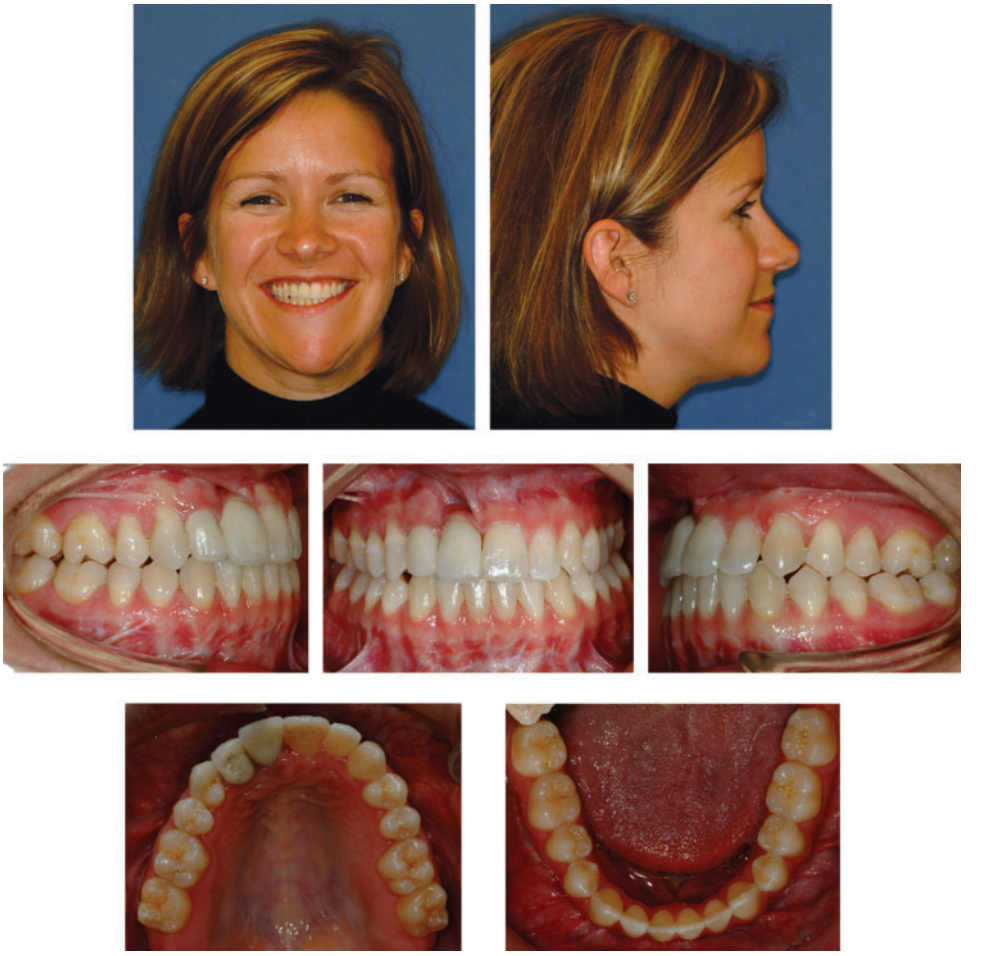


Figure 7 End of treatment extra- and intra-oral photographs