



The development of one-stop wide-awake dupuytren's fasciectomy service: a retrospective review

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All authors contributed directly to the development of the OSWA service, the data collection for and authorship of the paper; hence all listed authors were contributors

Summary

Objectives To detail the transition to a totally one-stop wide-awake (OSWA) Dupuytren's contracture surgical service.

Design Retrospective review of Dupuytren's component of last 1000 OSWA cases.

Setting The UK's first totally one-stop wide-awake orthopaedic service.

Participants 270 patients with Dupuytren's contracture out of the last 1000 OSWA cases.

Main outcome measures Surgical outcomes, patient satisfaction and cost-effectiveness and efficiency.

Results The OSWA Dupuytren's model is safe, efficient and effective; with a low complication rate, extremely high patient satisfaction; and cost-savings to the nhs of £2500 per case treated. The service saved the NHS approximately £675,000 for the 270 cases presented.

Conclusions A totally one-stop wide-awake Dupuytren's Contracture service is practicable and feasible alternative to the conventional treatment pathway, with benefits in terms of efficiency and cost-effectiveness.

Introduction

Dupuytren's contracture is a surgical problem traditionally managed in the hospital setting with surgery under general anaesthetic through selective fasciectomy. Two North American studies^{1,2} have shown selective Dupuytren's fasciectomy under local anaesthesia is a safe alternative to the traditional approach; but thus far no centre

has incorporated wide awake Dupuytren's surgery into a one-stop (same day) service. Recently, our one-stop wide-awake (OSWA) hand surgery service has been recognized as the first high volume provider of one-stop wide-awake hand surgery,³ and this paper details the Dupuytren's component of the service.

Traditionally, surgery was performed under general anaesthesia using a tourniquet. Heuston's

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table top test (patient cannot lay palm flat on table) was often used as a criterion for surgery; largely on account of the balance of pros and cons and risks and benefits of treatment.⁴⁻⁶ Whilst this conservative-expectant approach has been the mainstay of management; the paradox is that once proximal interphalangeal joint contracture has developed, often surgical complete correction is not possible. A lower risk alternative to the standard management pathway might enable earlier intervention (e.g. before significant proximal interphalangeal (PIP) contracture has developed).

Historically, surgery under general anaesthesia was performed on an inpatient, or increasingly on a daycase basis with full anaesthetic and recovery support. An alternative is the brachial plexus block or Biers block. The traditional patient pathway would involve: a GP consultation and referral; hospital outpatient visit; waiting list; admission for surgery with standard anaesthetic and surgical management; and outpatient follow-up appointments.⁴⁻⁶

In this paper we outline the development of a totally one-stop wide-awake Dupuytren's service to provide a stimulus for debate and also to present a fourth option in addition to multistop surgery under general anaesthetic (GA) and multistop outpatient treatment with fasciotomy either through bacterial enzyme injection or using a needle. The American papers on wide awake fasciectomy¹⁻² have demonstrated wide awake Dupuytren's is possible, safe and effective as an adjunct to surgery under GA in selected patients. Here we demonstrate this technique can be incorporated into a totally one-stop wide-awake Dupuytren's service, without any triage or case selection, with potential benefits in terms of efficiency, patient satisfaction and cost effectiveness; plus avoiding some of the traditional surgical risks such as general and regional anaesthesia and tourniquets, and potentially enabling removal of the pathological tissue at an earlier stage before irreversible contracture has set in.

Methods

In the 1000 case analysis recently published in this journal,³ 270 were Dupuytren's cases. Only complete audit cycles with medium follow-up data

were included in the original group, and indeed in the Dupuytren's subgroup. In this paper we analyze these cases in more detail.

We treat NHS patients through a county-wide surgical scheme. In Lincolnshire, because our service has proved so successful, Dupuytren's Contracture is not routinely funded for treatment under general anaesthesia or in hospital. Once a referral is received from a GP or intermediate care, the patient is contacted and asked to choose their own appointment slot. There is no waiting list.

Before surgery, the patient is sent an information sheet and asked to complete a simple health questionnaire and a validated quick disabilities of arm, shoulder and hand (DASH) score which they give to the Consultant during their appointment. There is full web support such that all patient information and data entry can be done by the patient online.

On the day of surgery, the patient is assessed by the surgeon for surgery, informed consent is obtained and surgery is performed: all within a 30-45 minute management slot. Documentation is streamlined yet comprehensive, and again there is full web support. There are no preoperative or postoperative consultations. Patients are always at liberty to defer, postpone or not proceed with surgery. Tubiana stage is assessed and documented (Table 1). This is the standardized method of grading the total degree of contracture at the metacarpophalangeal (MCP) and PIP joints: stage 1=0-45 degrees; stage 2=45-90 degrees; stage 3=90-135 degrees; stage 4=135-180 degrees.⁷

Fasciectomy is performed using lignocaine with adrenaline in the palm and plain lignocaine for digits. No tourniquet is used. No diathermy is used. Straight incisions with or without Z plasty are employed. Meticulous dissection is

Table 1
Tubiana Stages

<i>Tubiana Stage</i>	<i>Percentage</i>
1	25
2	14
3	26
4	35

essential. The relations of the Dupuytren's tissue to the neurovascular bundle is key: pretendinous band volar and central; spiral band dorsal and peripheral; lateral digital sheet dorsal and peripheral; Grayson's ligament volar. For proximal interphalangeal (PIP) contracture we selectively use volar joint capsulotomy, release of the checkrein ligaments, and release of accessory collateral ligaments. The flexor tendon sheath is opened in the cases of a persistent deformity limited dynamically by the flexor mechanism.

Regarding the technique with no tourniquet, it is indeed more challenging, but careful dissection and a meticulous technique of fasciectomy will minimize bleeding. In our experience, point bleeding from the skin edges or subcutaneous fat will

always stop after the first few minutes of surgery and with gentle but sustained pressure. Our injection technique (Figure 1) has been devised and adapted to minimize pain and needle penetrations. It involves a maximum of three needle penetrations using a 25 gauge needle in the palm with infiltration of lignocaine with adrenaline in the subcutaneous plain (blanching must be seen), and one penetration through the anaesthetized skin at the base of the digit and into the volar compartment of the finger (no blanching but flexion of the digit will be seen with correct needle positioning) with a 21 gauge needle. Because of the deep penetration of the digital injection, we prefer not to use adrenaline for this injection; and once again would state that in

Figure 1

Injection technique. (a) 25 gauge needle in palm directed perpendicular to skin: 2–3 penetrations lidocaine 2% with adrenaline 1:200 000; blanching of skin should be seen to confirm correct subcutaneous plane. (b) 21 gauge needle directed through anaesthetized skin into volar compartment of finger: plain lignocaine 2%. (c) Finger flexion confirms correct volar compartment injection

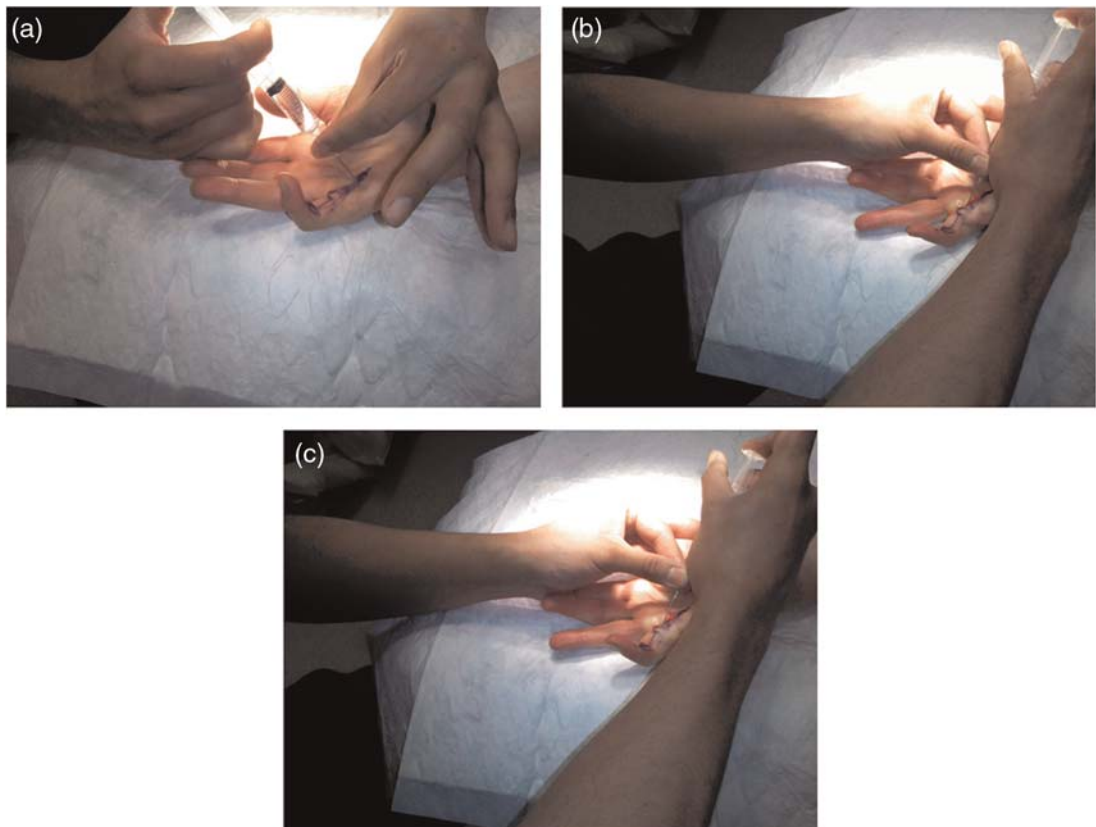


Figure 2
One-stop wide-awake fasciectomy



our experience, digital bleeding is not a limiting factor: excellent visualization is achieved (Figure 2).

The skin is closed with interrupted and continuous silk stitches which are removed after 10 days. Melanin dressings and a *boxing-glove* pressure dressing (Figure 3) with the finger splinted straight are used for 1 week. This is easily fashioned with a roll of wool secured with a 4 inch crepe bandage. A sling is provided for the first 3 days. Early active, gentle movement is encouraged and passive stretching is commenced once the wound is healed. We do not splint post-operatively and do not refer to physiotherapy. Most patients can return to work after 2–3 weeks. For staged operations (multiple digits, bilateral), subsequent stages can be performed any time after two weeks.

The timeline for the streamlined and efficient OSWA Dupuytren's pathway is detailed in Table 2, and the streamlining of the surgical equipment is underlined in Figure 4.

For the purposes of this audit the patients were reassessed at least once by the surgical team post-surgery and also via postal, telephonic and online questionnaires.

Correction of deformity was assessed through digital photography immediately and one week after surgery, using an android tablet and the Smart Tools (Copyright 2010–2012 Smart Tools Co) application; this was expressed as a percentage. Patient satisfaction and subjective correction

Figure 3
Boxing glove dressing



of deformity were assessed by postal, telephonic and online questionnaires which the patients were asked to complete at their convenience. If the patient has a straight finger after surgery, as measured with a true lateral photograph of the finger, this is a 100% correction, otherwise the percentage correction is calculated:

$$[(180-\text{residual angular deformity})/180]*100$$

We do not use total active range of motion for two reasons. Firstly, this is not a study of recurrence following fasciectomy, which has been well-investigated.^{4–6} Secondly, in our one-stop service we have a total of 30–45 minutes to assess and treat the patient, and do not have the luxury of multiple outpatient appointments. Using a goniometer to measure range of motion pre- or post-operatively is not possible in the context of our service; on the other hand, a digital photograph adds no time to or obstacles to the one-stop pathway. We suggest in the modern age that digital photography and proprietary calibrated applications can be utilized in this fashion to screen for acceptable early correction of deformity; especially if allied with the patient's

Table 2

Dupuytren's one-stop management timeline

<i>Timeline</i>	<i>Process/Practical Points</i>
Referral received	<ul style="list-style-type: none"> • Admin staff contact patient • Patient chooses appointment slot • Admin staff post out preoperative health screening and advice.
30 minutes prior to one-stop slot	<ul style="list-style-type: none"> • Patient arrives in waiting area, reads preoperative material
One-stop slot- 0–10 minutes CONSULTATION	<ul style="list-style-type: none"> • Surgeon calls patient • Assesses patient • Fills in preoperative and consent documentation • Marks skin incision • Risks and benefits and pros and cons of treatment options discussed • Informed consent obtained. • Simultaneously theatre nurse and healthcare support worker clean theatre and prepare equipment.
10–12 minutes	<ul style="list-style-type: none"> • Healthcare support worker gowns and covers patient in dressing cubicle (surgical gown, shoe coverings, surgical hat) and brings into theatre; positions supine on operating table.
12–15 minutes	<ul style="list-style-type: none"> • Surgical 'time-out' as per World Health Organization (WHO) criteria. • Surgeon administers local anaesthesia • 5–10 ml 2% lignocaine with (palm) or without adrenaline (fingers) <ul style="list-style-type: none"> ◦ 10 ml syringe ◦ 21 gauge needle ◦ 25 gauge needle • Prepping and draping.
15–40 minutes PROCEDURE	<ul style="list-style-type: none"> • Straight incisions • Z plasty as necessary • Standard equipment: <ul style="list-style-type: none"> • Scalpel • 2 × 15 blades • 2 × single skin hooks • 2 × double skin hooks • Alice forceps • Fine toothed forceps • 1 pack small swabs • 1 × 3-0 silk stitch (palm) • 1 × 4-0 silk stitch (digits)
40–45 minutes	<ul style="list-style-type: none"> • Melanin dressing. • 2 inch crepe for fingers otherwise 4 inch crepe. • <i>Boxing-glove</i> type pressure dressing with affected digit splinted in extension (Figure 3): <ul style="list-style-type: none"> ◦ Use roll of wool in palm to apply gentle pressure on wound and avoid postoperative haematoma or healing in flexion. • Postoperative advice including sheet plus full online support.
Postoperative advice	<ul style="list-style-type: none"> • Elevation 3 days • Boxing-glove dressing for 7 days • Wound check within 1 week • Early active gentle mobilization of digits • Suture removal after 10 days • Active grip strengthening/stretching of digit in extension once wound healed.

Figure 4
One stop wide-awake dupuytren's tray



perception of correction, which is surely the key, along with their satisfaction. The North American papers have demonstrated that the technique we use is an effective and good option on the balance of risks and benefits; with a complication profile (including recurrence) similar to treatment under GA but without the risks of GA or tourniquets.¹⁻²

All Dupuytren's patients are clinically reassessed after one week for the purposes of the audit, and staff document outcome on three criteria: surgical site; functional assessment and percentage correction of deformity. Thenceforth we rely on the patients reporting their own outcome via our website and via postal and telephonic questionnaires, which include pre- and post-operative validated quick-DASH scores.

Outcome is assessed on the basis of five outcome criteria (Table 3). For an excellent outcome all available criteria are satisfied. For a good outcome all but one available criteria are satisfied.

Results

- 270 consecutive cases treated.
- 26% females, 74% males.
- Mean age 64.7
 - Range 44 to 84
- 57% right hands, 43% left hands.
- Atypical presentation:
 - Primary complaints of pain, neurological symptoms, triggering of digit, extensive skin involvement and puckering or nodular disease with functional disability.
 - Up to 20% of cases
 - See case report section
- Over 5% revision cases
 - Previous surgery under general anaesthesia
 - Recurrent deformity
 - No significant difference in outcome between revision and primary cases.
- Mean correction of deformity as analyzed by digital photography:
 - 95%
 - Range 30–100%
 - There was no significant difference between immediate postoperatively and 1 week postoperatively corrections on calibrated digital photography.
- Z plasty and flexor mechanism assessment and optimization routinely performed for stage 3 and 4 cases.
- Infection rate <0.5%
- Patient satisfaction rate with service over 99%.
- Over 99% good-excellent clinical results on the basis of satisfying all or all but one available outcome criteria.
- Unsightly/problematic scar less than 5%; delayed wound healing 10%.
- Finger affected
 - 41% ring
 - 37% little
 - 15% middle
 - 4% thumb
 - 3% Index
- Isolated PIP contracture
 - 20% of cases.
- Pain control
 - 40% of patients took no simple analgesia after surgery.
 - 60% took simple analgesia.

Table 3
Outcome Criteria

<i>Five Outcome Criteria*</i>	<i>Criterion</i>	<i>Good outcome</i>
I	Patient satisfaction survey-postal or online	Patient satisfaction achieved
II	Postoperative audit assessments by clinical team – surgical site monitoring and deformity correction	A. Acceptable correction of deformity: <ul style="list-style-type: none"> ● 100% stage 1–2 ● ≥ 90% stage 3–4 unless late presentation of fixed PIP contracture or criterion V achieved- see below ● Fixed PIP contracture ≥50% correction achieved or criterion V achieved- see below B. Surgical site monitoring – patient followed to good outcome: <ul style="list-style-type: none"> ● Acceptable healing achieved. C. Functional assessment <ul style="list-style-type: none"> ● Acceptable outcome achieved.
III	Complication reporting – OSWA staff and Patient: <ul style="list-style-type: none"> ● Surgical documentation ● Online secure complication log** ● Via telephone helpline or through email** 	No intraoperative complication
IV	Validated quick-DASH score	Improvement of hand function post-surgery Clinically important difference (CID) achieved.⁸
V	Range of motion	

* Every attempt possible is made to collect all five outcome criteria for an individual patient, but this is not always possible: for an excellent outcome all available outcome criteria must be satisfied, and for a good outcome all but one criteria

** OSWA processes mean that all perceived problems are immediately assessed, verified and managed through open access clinical consultation

- Patient perspective:
 - 87% report subjective correction of their deformity.
- There were no intraoperative complications (such as nerve, vascular or tendon injury), no cases of finger amputation and no re-operations for early recurrence.
- There were no cases of complex regional pain syndrome.
- No cases unsuitable for local anaesthetic surgery or requiring onward referral.
- No patient deferred/postponed surgery or did not attend.
- One-stop wide-awake service:
 - One-stop wide-awake care achieved for all cases

- Saves the NHS approximately £2500 per case, with a cost saving of £675 000 for the cases presented.

Case reports A to E – examples of atypical presentations and revision cases

Case A: Removal of pathological Dupuytren's fascia

40-year-old gentleman presented with painful stage 1 Dupuytren's with no palpable cord in patient's words:

'I've been working for myself this last two years as a tree-surgeon and landscape gardener, so I have

always been very hard on my hands. My hands are my business, without them I cannot make money.

I have never had any problems with my hands until 6 months ago when I bought a large industrial pressure washer...

I have used smaller pressure washers on people's paths, patios and driveways. I was getting more work around spring time where people wanted their properties to look nice for the summer. I had a brand new pair of padded gloves to reduce the vibration in my hands.

After using my pressure washer all day I found that I could not feel my thumbs, kind of pins and needles. That didn't feel right, so I gave it a rest for a few days. I had at least 2 weeks work on, so I spread the work out over a month and got the work finished...

[I] put up with the pins and needles because I didn't want to let people down, knowing that when I had finished, I would not do so much all at once with the pressure washer.

'To my surprise I started to feel sharp painful lumps on my hands and they were extremely painful when using equipment such as chainsaws. The lumps just came up from nowhere over a few months which has lead me to Mr Bismil and his team, who have removed them now and all the pains have gone.'

At operation, the patient was found to have multi-focal nodular Dupuytren's disease compressing the adjacent digital nerves. Fasciectomy was performed with immediate resolution of the neurological symptoms as documented by the patient himself above.



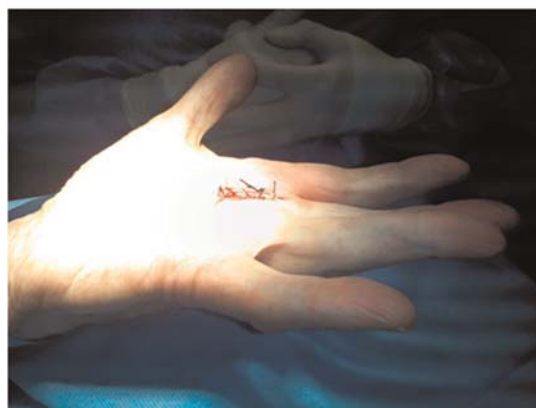
Case B: Locked triggering digit secondary to Dupuytren's

A 65-year-old gentleman with fixed trigger finger secondary to Dupuytren's with no palpable cord treated with fasciectomy.

Pre-OSWA fasciectomy



Post-OSWA fasciectomy



Case C – Revision case referred to OSWA-previous surgery under GA

A 40-year-old gentleman who had his right ring finger Dupuytren's operated upon twice, 15 years ago, under general anaesthesia but was left with a recurrent deformity after surgery; his finger had not been straight after either of the original operations. At OSWA surgery we were able to correct the deformity through removal of the pathological fascia and scar tissue that had been

left. The ring finger was 100% corrected and the little finger has also improved greatly on account of the optimization of ring finger and the flexor mechanism. A further OSWA treatment for the little finger is planned later this year.

'I was pessimistic when I was referred. I had accepted I was going to lose the finger. I came requesting amputation but was reassured by the surgeon and had my OSWA treatment to straighten the finger.'

Pre-OSWA fasciectomy



7 weeks post-OSWA fasciectomy



Case D: Revision case originally treated under GA fully corrected at OSWA

A 70-year-old gentleman with recurrent Dupuytren's following surgery under GA 10 years ago: fully corrected at OSWA surgery.

Pre-OSWA fasciectomy



6 weeks later



Case E: Extensive skin Dupuytren's disease treated at OSWA

A 59-year-old male with little finger Dupuytren's with extensive skin involvement and puckering pre- and 1 week post-OSWA fasciectomy.

Pre-OSWA fasciectomy



1 week post-OSWA



Discussion

Dupuytren's Contracture is a fibroproliferative disorder. Aetiology is multifactorial, with: genetic predisposition (autosomal dominant with incomplete penetrance, Scandinavian, European or Irish lineage); and superimposed environmental (microvessel ischaemia) and biochemical/cellular factors (altered collagen profile, platelet derived growth factor, fibroblast growth factor, myofibroblast proliferation).⁴⁻⁶

Surgical fasciectomy with removal of the Dupuytren's tissue remains the gold standard treatment for Dupuytren's contracture. Most surgeons remove the pathological fascia *per se* (selective fasciectomy) rather than all of the fascia including normal fascia (total fasciectomy).⁴⁻⁶ Another option in primary disease configurations with a palpable cord is to divide the cord (fasciotomy) through bacterial enzyme (collagenase) injection⁸ and needle fasciotomy.⁹ These options have recently been popularized on account of the perceived lower risks, with no general anaesthesia and no tourniquet required, and lower costs versus standard surgery. In our experience both of these techniques have limitations. The effects of bacterial protein injection have not been ascertained as yet in the long term, or compared in a level one or long-term study to surgical fasciectomy. Early complications of injection treatment include reactions to the collagenase and damage to adjacent structures; and there is a risk of tendon rupture with an injection that is directed into the tendon which sits just under the diseased fascia. Moreover, neither technique

is all-encompassing and can only be used for certain configurations and stages of disease. Most surgeons fasciotomise the cord before removing it, and in our experience this does not result in an acceptable correction of deformity in most cases. Furthermore, isolated PIP contracture is fairly common and forms 20% of our practice; often in these cases there is no palpable cord and fasciotomy would not be logical. A single injection fasciectomy treatment for Dupuytren's is an appealing prospect for patients but, at present, this treatment is not available. The current bacterial enzyme pathway would involve multiple outpatient stops; usually involving multiple visits to the clinic, multiple injections with manipulation of the finger and a prolonged period of splinting. Both injections and fasciotomy, by definition, leave the majority of the pathological tissue behind. Whilst we agree that conventional surgery is relatively expensive, OSWA surgery is not; hence the potential advantages of the fasciotomy treatments (injection or needle) in terms of cost saving, no GA and no tourniquet are not relevant versus OSWA surgery. Once the costings for the bacterial enzyme injection pathway include more than one injection and multiple outpatient appointments, OSWA surgery becomes significantly more cost-effective.

Because we are fortunate to see and treat such large volumes of Dupuytren's and hand surgery patients, we see many atypical presentations of Dupuytren's (up to 20% of cases); with patients presenting with pain, neurological symptoms, triggering and nodular disease or skin puckering with functional disability. Hence, a one-stop service based around fasciotomy (either through bacterial protein injection or needle fasciotomy) does not seem to be an option: firstly because neither technique can be used to treat all Dupuytren's cases (i.e. revisions from failed previous treatment, and atypical presentations); and secondly because of the multistop pathway for these treatments. Of the cases presented above or the 20% atypical presentations, none would have been suitable for fasciotomy.

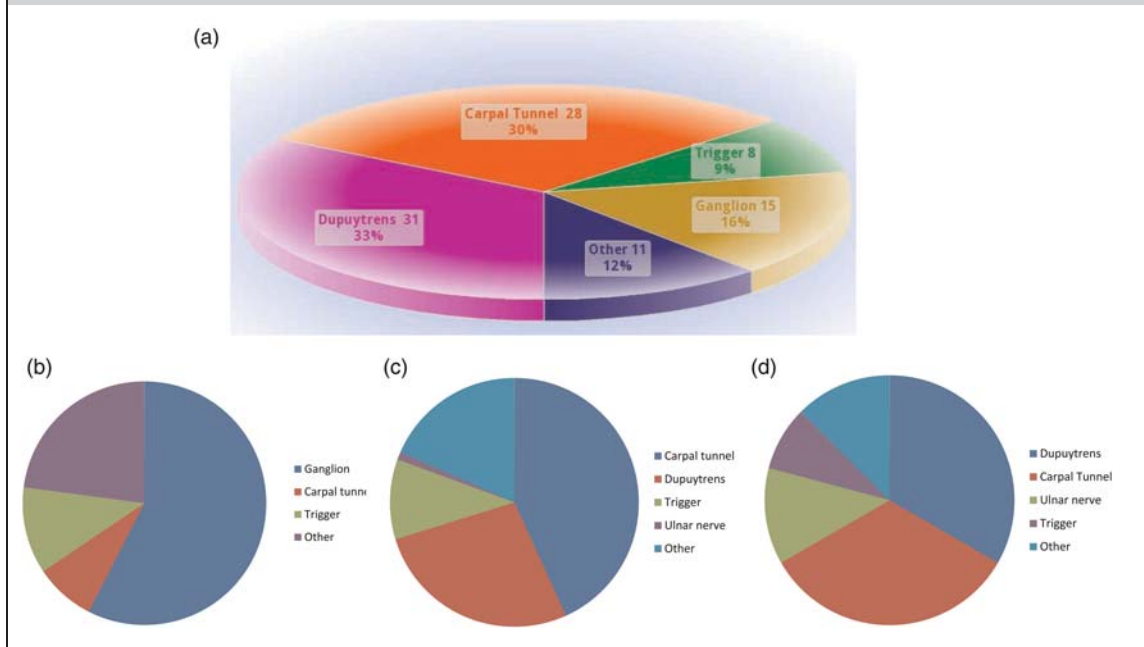
Traditionally, operation under general anaesthesia was advised if the metacarpophalangeal (MCP) or proximal interphalangeal joint deformity (PIP) exceeded 30 degrees;⁴⁻⁶ and indeed this corresponds with Heuston's table top test (patient can no longer achieve a flat hand in

contact with the table). However, complete correction of a PIP joint flexion deformity is difficult to achieve and maintain. Hence, operative intervention has generally been recommended when any PIP joint contracture is noted. With traditional surgery for Dupuytren's with PIP contracture at 2-year follow-up, only 44% reported improvement in PIP joint extension.¹⁰ Historically, Dupuytren's was considered a complex operation requiring general anaesthesia under tourniquet and hospital admission. Traditionally, surgery was therefore often reserved for resistant cases. Previous authors have demonstrated the safety and efficacy of Dupuytren's Surgery under local anaesthesia.^{1,2} However, worldwide the uptake and evolution to total wide awake Dupuytren's surgery has been slow. Certainly, the technique under local anaesthesia without tourniquet is more demanding. A large experience of Dupuytren's surgery and local anaesthetic surgery is essential; and the surgeon has to become comfortable with performing surgery without the use of a tourniquet. Our Dupuytren's service has been established for 10 years, and the rate and complexity of referrals is increasing; this year we anticipate approximately

400 referrals (Figure 5). The results presented here confirm that a total one-stop wide-awake Dupuytren's service is possible, safe and effective. If Dupuytren's contracture is treated through a total wide awake approach the risks of surgical intervention are re-balanced and there is a possibility of treating the condition at an earlier stage before severe contracture develops. Certainly, all our procedures are performed on the basis of a favourable balance of benefits versus risks of surgical intervention. Furthermore, our experience and analysis of the early (stage I and II) versus late (stage III and IV) presentations demonstrates that more excellent outcomes are achieved in early cases. Moreover, our experience confirms that PIP contracture and stage IV contractures are difficult to fully correct. Recurrence of a contracture can only occur if the finger is left to bend for some time in the first place, hence overall we would advocate early intervention for symptomatic Dupuytren's.

The one-stop service is efficient from a patient and service perspective, and is cost-effective. We are able to operate the service at approximately 25–30% of national tariff costs i.e. a saving of

Figure 5
Service figures. (a) Latest monthly figures. (b) 2009 Case mix: approximately 500 cases per year Dupuytren's less than 1% of cases. (c) Last 1000 cases (2011). (d) 2012 projections: approximately 1200 cases



up to seventy five percent. With the present and impending changes in healthcare provision, the delivery and cost-effectiveness of elective surgical services must be optimized. This paper demonstrates that a total wide awake approach to Dupuytren's Contracture is safe, effective and practicable. We suggest that a transition to total one-stop wide-awake approach to Dupuytren's contracture would secure the cost-effective, efficient delivery of low-risk Dupuytren's contracture management going forward.

In addition to the importance of the OSWA Dupuytren's service in the streamlined and cost-effective in Dupuytren's care, our transition to a total OSWA Dupuytren's service demonstrates that surgery that was previously thought to be only suitable for in-hospital care can now be managed through a one-stop wide-awake approach. Dupuytren's was the most complex and last condition to be incorporated into our service. We suggest that future OSWA services based on our model (whether orthopaedic or other speciality) can build upon our experience of our service as a whole³ and with regard to incorporating complex conditions such as Dupuytren's. We would suggest that initially the surgeon needs to have a good experience of the traditional management of the conditions (GA, tourniquets, regional anaesthesia, multistep pathway), then they can establish an OSWA-type service for minor conditions; and with all of the necessary management, process and clinical issues dealt with, they can transition to more complex procedures (in a hand surgery practice this would include Dupuytren's and ulnar nerve entrapment at elbow and wrist). This is demonstrated by considering our 2009, 2011 and projected 2012 figures. For Dupuytren's we were aware of the North American progress with wide awake fasciectomy and built upon this.

The senior authors (MSKB and QMKB) have been treating Dupuytren's Contracture purely under local anaesthesia for the last decade and have not had to reject/refer a single case for treatment under general anaesthesia. The success of our service is such that in our region, under the Lincolnshire Primary Care Surgical Scheme,

Dupuytren's Contracture is not funded for treatment under general anaesthesia or in hospital unless exceptional circumstances can be demonstrated. The cost saving to the NHS per case through our service is approximately £2500. With 12,000 Dupuytren's operations performed in the UK each year,¹¹ there is the potential of a thirty-million pound cost-saving to the NHS going forward.

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