

# Treatment of Dupuytren Disease in Different Countries: A Welcome Address from the President of IFSSH

Zsolt Szabó

## Contents

1.1	<b>Introduction</b> .....	3
1.1.1	History (My Personal History) .....	4
1.1.2	Years of Tranquility (The Calm Before the Storm) .....	4
1.1.3	Rebirth of Dupuytren Disease (The Start of a Mild Revolution) .....	4
1.1.4	The Actual Situation (Calm After Storm) .....	5
1.2	<b>Etiology</b> .....	5
1.3	<b>Histopathology</b> .....	6
1.4	<b>Diagnostic</b> .....	6
1.5	<b>Treatment</b> .....	6
1.5.1	Who? .....	6
1.5.2	Where? .....	6
1.5.3	When? .....	6
1.5.4	What? .....	7
1.5.5	Surgery .....	7
1.5.6	Postoperative Care .....	7
1.6	<b>Complications</b> .....	7
1.7	<b>Prognostic</b> .....	8
1.8	<b>Recurrences</b> .....	8
1.9	<b>Future</b> .....	8
1.10	<b>Conclusions</b> .....	8
1.11	<b>Decision-Making</b> .....	9
1.12	<b>Final Remarks</b> .....	9

Z. Szabó  
Hand Surgery Center, BAZ University Teaching  
Hospital, 72-76 Szentpeteri kapu, 3526 Miskolc,  
Hungary  
e-mail: [activhand@gmail.com](mailto:activhand@gmail.com)

## 1.1 Introduction

When I was asked to deliver the opening lecture of this very promising and highly scientific congress, my first thought was that, based on my experience in working with the delegates of different national societies from Europe (FESSH, Federation of European Societies for Surgery of the Hand) and the world (IFSSH, International Federation of Societies for Surgery of the Hand), I would create a questionnaire. I would include general questions about the epidemiology, treatment, complications, recurrences, and final outcome of the patients treated in their country. As good as this idea seemed as difficult it was to know whether or not it would receive realistic, scientifically valuable data. As time advanced and the congress approached, I realized that although it might be possible to review a large pool of data reflecting theoretical knowledge of the group, I started to have concerns whether it would be useful and interesting as a first lecture of such an event. Finally, I decided instead that I would present my subjective feelings based on my experience. Maybe the statements will be lacking exact numbers and facts, but they will reflect exactly what I feel, what I think, and what I believe in my usual funny, sometimes ironic way of summarizing certain situations. I would like to apologize if I hurt someone's feelings or if my statements are too generalizing and do not fit, but my purpose is not to offend or criticize anybody, only to express

my personal feelings and provide a friendly open-minded atmosphere of this great scientific and teaching event.

### **1.1.1 History (My Personal History)**

When I first entered in a hand surgery operation theater, I was a young medical student, and the famous plastic surgeon of the hospital was operating on a hand with contracted fingers. I saw and understood almost nothing, and I could not imagine how it was possible to find those small little structures, the nerves and arteries in that hard tissue block without hurting them. After this first admiration immediately came a great disappointment: the operation was finished with a big open wound in the palm, without even attempting to close it. I remember thinking that I would definitely not be happy to have this in my own palm. That time I was not even thinking of becoming a hand surgeon, but life sometimes takes interesting turns. I have seen myself traveling from a politically isolated Eastern European country to be a resident in Stockholm's Karolinska Institute and to Guy Foucher's SOS Main Strasbourg Clinique, followed by years in Nice University Hospital and in Showa University in Tokyo. I have learned a lot. I have learned how to do things and how not to do things. It was difficult to accept, but I have seen that what was white in one part of the world was black on the other side with different grays in the middle. In 1997 in Bologna, during my oral examination for the European Diploma Examination, Professor Safar asked me about the operation of a Dupuytren-contracted PIP joint, about the relations of the Grayson and Cleland ligaments, and about the importance of the spiral cord and what to do with the checkreins. If I would like to summarize my opinion of the first 10 years of hand surgery concerning Dupuytren Disease, I would say that this is one of the most exciting conditions of the hand solved in different manners, with different skills and techniques. If I would like to make a quick opinion on a hand surgeon's skills, this would be the first operation I would like to see him perform.

### **1.1.2 Years of Tranquility (The Calm Before the Storm)**

As the scientific chairman of the 2004 Budapest IFSSH Congress, I noticed that hand surgeons like Dupuytren Disease. There were many abstracts for free papers and a large number of attendance in the lecture rooms. Dupuytren is just like football and politics: everyone is an expert. In the last decades, there was great interest but no historical discoveries, no revolutionary changes, and no unsolvable controversies. Dupuytren Disease was a calm sea in the middle of the ocean of hand surgery. There were some basic research articles dealing with the histopathology of the disease but without great interest for the everyday practitioner. When I became chairman of the European Diploma Examination, it became clear during the evaluation of the examination results that Dupuytren Disease is one of the favorite topics of the candidates. That was the perfect question when the examiner wanted to help the candidate.

### **1.1.3 Rebirth of Dupuytren Disease (The Start of a Mild Revolution)**

When a group of European hand surgeons from different countries and different strategic positions were invited by a medical drug company (Pfizer) for a whole day brainstorming session and the subject of the discussion was an injection which would solve the contracture and replace surgery, nobody thought that this event/drug would definitely change our view and knowledge on Dupuytren Disease. Dozens of serious concerns were listed, and a significant opposition was detected against the original material, method, and outcome prognosis. The surprising outcome of this meeting was that for the first time in the history of hand surgery, a medical drug company was interested in the opinions of the specialists and, even more importantly, took them seriously. An advisory board was formed and our initial concerns were taken in consideration. New and more detailed

data on the drug was provided. Instructional materials were replaced. The importance of training was accepted. Authorization to use the drug was restricted to medical staff that had experience in the treatment of the disease. Clinical studies were considered and started. However, the real value of the collagenase injection was that starting with its commercial introduction, in almost all major hand surgical events, FESSH and IFSSH congresses, national congresses, and courses, a symposium or a workshop or a session dealing with Dupuytren Diseases was included. The good thing was that these sessions not only dealt with the “new” treatment method but also relaunched the research on the etiology on the different treatment methods, on the outcomes, and on the recurrences of the disease. We should not underestimate the financial contribution of the drug-selling company to the budget of these scientific events directly contributing to the teaching value of these events and the positive influence on basic and clinical research sponsored by them. Due to this, Dupuytren Disease became in the focus of every organization dealing with hand surgery, and every hand surgeon wanted to have information on this new treatment method.

#### **1.1.4 The Actual Situation (Calm After Storm)**

Introduction of the drug in different countries and geographic regions was completely different due to different regulations and different economics. There were countries where it was a simple procedure and everybody was happy, countries where the hand surgeons were against it, and countries where the financial situation made the treatment with the drug unaffordable. Financial interests of surgeons afraid of replacing the income of a big operation by the smaller remuneration of a simple injection coupled with the understanding that this injection was not the wonder tool to solve every Dupuytren Disease forever resulted in a very colorful situation on the international map of hand surgery. The drug company itself realized that this was not the biggest financial success story, that

the benefit was less than expected, and that the large amount of spent money with education and marketing would probably never come back. The growing and more clear data on the recurrence rate, possible complications, and adverse reactions made it possible to have a more realistic view on the real value of the collagenase. Only in the future, when more detailed well-planned clinical studies with prospective data are collected, will we be able to define the real value and position of different treatments in Dupuytren Disease. Today we try comparing apples with pears; we mix what we think with what we believe and what we know, sometimes spiced up with a hint of what we hope. Because evidence-based data are replaced sometimes with eminence-based data, it is very difficult to be objective and eliminate subjectivity. Because it is a very difficult, almost impossible task, I will not even try, but instead will summarize my subjective feelings on this very challenging and favorite topic.

---

## **1.2 Etiology**

If you look around the world, you will understand that the interest toward this disease varies. There are countries where the majority of older males have this disease and others where you can find this disease only among the representatives of the Scandinavian consulates. If you ask about the etiology, the majority will tell you that this is a genetically determined, inherited “Viking” disease, but will give no precise explanation of what gene is responsible, how is it inherited, or how the Viking ancestors reached those far from the sea remote places. One interesting answer regarding the etiology of the disease was: “I don’t know exactly but anyway it has no interest for me. Most important is that this disease is generating the highest percentage of the income of my practice.” It seems that every existing and nonexisting human behavior and pathological condition has been associated in a way or another to Dupuytren Disease. Microtraumas related to hard physical work, alcohol, and epilepsy are the most common etiological factors, but only a few hand surgeons know and speak about the existence and importance of the diathesis.

### 1.3 Histopathology

Every course, congress, and symposium dealing with Dupuytren Disease usually start with detailed high-level studies dealing with the different forms and stages of fibroblasts and the different types of collagen. “Real-life” understanding of Dupuytren Disease is a little bit simpler and to my great surprise spans from the occasional belief that it is contracture of the flexor tendons (!) to the most frequent idea that it is collagen cords generated by fibroblasts. It may seem surprising that a surgeon treating Dupuytren thinks that this is a contracture of the flexor tendons, but it was even more surprising for me when in one patient I found during a reoperation a repaired state-of-the-art central cord according to Bunnell flexor repair with core and circumferential suture dating from a previous “not too successful” operation for Dupuytren Disease. Another interesting intraoperative finding I have seen after a previous operation was the total absence (!) of the superficial and deep flexor tendons in the fourth and fifth rays.

---

### 1.4 Diagnostic

For the majority of surgeons in the majority of the world’s countries, making the diagnosis of Dupuytren Disease is one of the simplest things: it needs “just a look.” On the other side, in some very fancy, “sophisticated” centers, we hear about ultrasound, MRI, or histological examinations for the diagnosis of this condition.

---

### 1.5 Treatment

Finally, we are arriving at the most interesting and challenging piece of cake: the treatment. There are several aspects which commonly arise when discussing treatment modalities in different stages of the disease. The most frequently discussed question regarding treatment is who should treat the condition.

#### 1.5.1 Who?

The question is whether a GP or rheumatologist is authorized or not to treat the disease. In some countries, rheumatologists or GPs without any specific knowledge on the anatomy, pathology, and possible complications bravely deal with percutaneous needle aponeurotomy. In other countries, general surgeons, trauma surgeons, orthopedic surgeons, or plastic surgeons deal with the condition. In some countries, a national diploma of hand surgery is needed. The latest improvement in specializations provides us a country where the European diploma in hand surgery is needed to surgically treat Dupuytren Disease. During my pilgrimage around the world, the most generally accepted (and for me the most reasonable idea) is that only a person who is able to deal with the resolution of any eventual complication is entitled to treat a certain condition.

#### 1.5.2 Where?

The question where to treat a patient with Dupuytren Disease may seem simple and without any controversy, but depending on the local habits, national regulations, financing, and tradition, this varies from ambulatory outpatient care to at least one week hospitalization. Discussing this question, we may agree that the tradition, the level of civilization, the presence of the social network, and education of the patients considerably influence the place of treatment.

#### 1.5.3 When?

Despite the very well-established and proven fact that surgical treatment in early nodular stages does not give the best outcomes, we always find surgeons who think that surgical treatment should start as early as possible. A series of nonsurgical alternative treatment modalities may argue for an as early as possible treatment, but the generally accepted rule seems to be to recommend treatment when the patient is limited in his everyday activities by the condition.

### 1.5.4 What?

Treatment of Dupuytren Disease varies in countries around the world from acupuncture, ultrasound, light therapy, massage, and even meditation to the clear and simple argument of treatment with surgery. Medical treatment has been reported a few times, but no clear and evidence-based results have been reported on the usefulness of a drug. Steroids, anti-inflammatory drugs, cytostatics, enzyme inhibitors, and several other drugs have been tested, but no relevant data has been reported. The only useful alternative therapy in incipient stages seems to be radiotherapy. The majority of hand surgeons know about this therapy but never use it, have no idea on the treatment details, and are concerned by the eventual complications and adverse effects of the radiotherapy. Needle fasciotomy became a minimally invasive competitor to surgery but never became generally accepted and available. In the last years, the use of collagenase entered like an explosion. Everybody knows about it; lots of people use it; those who have only heard about it all would like to try it. Those who have never tried it have the most precise opinion about the “theoretical” disadvantages of the method, giving one the feeling that they are trying to explain why they have never tried it. But speaking about the treatment of Dupuytren Disease, we must admit that the significant majority of hand surgeons agree that the treatment of the condition should be a surgical one.

### 1.5.5 Surgery

Surgery varies from the simplest “just break the cord” and leave everything as it was to the very last possibility of amputation of the involved ray. Depending on what to do with the cord (cut it and leave it there; cut it and take it out; take it out together with the surrounding healthy tissue), we have different types of surgery. Depending on what we do with the skin and the probable skin defect, options range from simple Z-plasties to multiple Z-plasties and open-palm techniques to replacement of the skin defect with split-thickness

or full-thickness skin grafts. Every method has its advantages and its adepts. Every surgeon is convinced that their methods are the best, safest, and most beneficial for the patient.

### 1.5.6 Postoperative Care

If surgery is controversial and provides us a multitude of options, postoperative care also divides hand surgeons in two big groups. One group says that the only advice of postoperative care should be: “use your hand as early and as much as you can.” The members of the other group are convinced by the usefulness of splints and think it is mandatory to use a day and night splint during the first weeks after the operation followed by a nighttime splint for weeks and months after surgery. There are others who think that dynamic splinting will improve their results. Surprisingly, despite the fact that a large majority of surgeons are aware of the evidence that there is no significant difference in outcomes between groups with postoperative splinting and without splinting, they still continue to follow their own previous habits.

---

## 1.6 Complications

The number or percent of complications show very interesting variations. There are surgeons who believe that they have no complications. Others report significant numbers of injured nerves, tendons, and CRPS. It is very difficult to express the complication rate in one number or percentage, because it is different depending on the stage of the disease, whether it is a new disease or a recurrence, and the experience and skill of the operating surgeon. The most frequent intraoperative complications are injuries of nerves and arteries. Early postoperative complications include hematoma formation, pain, swelling, and bleeding. Late postoperative complications include wound-healing problems, limitation of range of motion, chronic regional pain syndrome, long-term

numbness, and paresthesia. Usually there is general agreement that not the complication itself causes the real long-term problem but rather when it is missed or neglected and no repair or treatment is performed to solve the complication.

---

## 1.7 Prognostic

Prognostics vary, depending on the self-confidence, ego, and knowledge of the surgeon, from the confident “healed forever” to the pessimistic “we can do whatever, but the disease will come back.”

---

## 1.8 Recurrences

Recurrences are one of the most controversial topics in Dupuytren Disease. At this moment there is no clear definition on what should be considered recurrence. The appearance of a new nodule or a cord in an already operated area or reappearance of an extension deficit of 10–20–30° is the most frequent subjects of discussion. As we go back in reading historic articles, we may see that the older the publication the lower is the recurrence rate. This is probably not due to earlier times having better or more skilled hand surgeons, but due to the fact that data collection and study methodology in the past had more deficiencies. Another very interesting conclusion when listening to different hand surgeons around the world is that the majority of recurrences and severe complications are always coming from the famous “elsewhere hospital.” After attending several scientific meetings dealing with recurrences in Dupuytren Disease, my conviction is stronger than ever that recurrences seem to be a problem for the scientist and for the surgeon but not for the patient. It seems that satisfaction of the patient is not related to the percentage of recurrences, and first of all when reoperating for a recurrence, the main indication should be the limitation in activities and the will of the patient.

## 1.9 Future

It may seem futuristic, but probably the final solution will be a pill that will make the disease disappear. When applying any kind of treatment to our patients we should inform them that we cannot treat the disease itself but only its manifestations. Once we know the exact genetic basis of the disease, genetic surgery might possibly solve the problem. Dupuytren Disease might just be another case like duodenal ulcer, a condition which was one of the most frequent operations for general surgeons 30 years ago and almost completely disappeared in our days due to the discovery and treatment with proton pump inhibitor drugs.

---

## 1.10 Conclusions

If I have to list a series of conclusions, the most relevant for some countries around the world I would conclude in the following way:

- In the USA, they are clever. They developed the collagenase treatment. They use it and they sell it, making lots of money.
- In Scandinavia, they are rich, so they buy and use collagenase.
- In France, hand surgeons fight with rheumatologists whether or not to use needle fasciotomy. They don’t like collagenase as it is American, and they are convinced that the best way to treat Dupuytren Disease is to do a fire break dermofasciectomy.
- In Germany, they are brave and not afraid of radiotherapy. They don’t believe in collagenase because there are no comparative studies, and they prefer to buy the drug on the “black market,” importing it from Austria.
- In the UK, they do lots of different studies and publish them in their journal written in fluent native English.
- In Netherlands, they want to do something new and they do lipofilling (probably because they have a lot of liposuction), and of course they organize successful high-level Dupuytren congresses.

- In Eastern Europe, we are eagerly looking to the “Big Brothers,” and we are ready to do everything which is cheap and available and with which we can earn some money.

---

### 1.11 Decision-Making

If everything is so unclear, so different, and full of controversies but everybody wants the best outcome for his/her patients, then how to decide? The most difficult step in evaluating the different data, stories, presentations, teachings, and lectures is to recognize whether those data represent “evidence-based” data or “eminence-based data.” We should understand that it is important to know if the presented data are what the presenter believes, knows, or hopes! We may think that evidence-based data are mandatory in our everyday decisions, but reality is different. Decision-making can be regarded as a cognitive mental process, resulting in the selection of a course of action among several alternatives. Every decision-making process produces a final choice. The decision-making is a reasoning or emotional process which can be rational or irrational. As surgeons, we like to think that our decision-making is completely rational, based on evidence. The reality is that medical decision-making is a very complex and very well-studied process. The goal is improved patient outcomes. It is based on three pillars:

- (a) Best available clinical evidence
- (b) Individual clinical expertise
- (c) The patient’s values and expectations

Based on the above listed, I am convinced that everything I have written up to this point in this chapter represents my beliefs. Of course, there are things I do not want to believe, but I know are true. These facts are:

- (a) Regarding Dupuytren, we really need evidence-based data.

- (b) Even if we have evidence-based data, we do not use it as we should.
- (c) We have to work a lot, constructing and finalizing studies which may help us to better know the disease.
- (d) We have to finally agree on what is a recurrence and what should be considered a complication.
- (e) We have to take in consideration our patients’ expectations.
- (f) Xiapex/Xiaflex development and marketing has contributed enormously to our education and knowledge on Dupuytren Disease.
- (g) FESSH and IFSSH are willing to promote knowledge (congresses, courses, committees, reports) and not beliefs among hand surgeons.
- (h) Scientific events like this one in Groningen (due to the hard work of the organizers) help a lot to improve our knowledge and the outcome of our patients.

---

### 1.12 Final Remarks

Finally, I am convinced that one day our patients will take a pill and there will be not anymore need for surgery, and thus complications and recurrences will disappear. Maybe this will be beneficial for the patient, but then unfortunately the field of hand surgery will be poorer with loss of one of its most interesting chapters.

On behalf of FESSH and IFSSH, I would like to thank all organizers of this event for the great job they have done and would like to express my conviction that the congress in Groningen and this book presenting results from Groningen will prove a great learning experience with a major contribution to our knowledge on the disease.

**Conflict of Interest** The author has no conflicts of interest to declare.