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## Use of images in a surgery consultation. Will it improve the communication?

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#### Rezumat

# Utilitatea imaginilor în cadrul cabinetului de chirurgie. Poate îmbunătăți comunicarea medic-pacient?

Introducere: Anamneza și comunicarea cu pacientul fac parte din activitatea zilnică a personalului sanitar. Totuși, câteodată comunicarea poate fi îngreunată de diferiți factori. Având în vedere acest fapt, utilizarea imaginilor pentru a ilustra diverse condiții medicale poate îmbunătăți comunicarea și înțelegerea patologiei de bază în cazul pacienților ambulatorii. În această lucrare prezentăm experiența noastră inițială în ceea ce privește utilitatea imaginilor în a ameliora calitatea comunicării cu pacienții chirurgicali.

Metode: Pacienții incluși în studiu au fost randomizați în două grupuri. Fiecărui pacient în parte i s-au explicat problemele relaționate cu patologia sa. În cazul unui grup am folosit de asemenea un computer pentru a ilustra următoarele condiții, după caz: chirurgia herniei inghinale, litiaza biliară, colecistita, colelitiaza și patologia tiroidiană. Apoi pacienții din ambele grupuri au completat un chestionar în care au valorat utilitatea metodologiei și gradul de satisfacție. Am analizat de asemenea durata medie a vizitei medicale în cazul celor două grupuri.

Rezultate: Pe o perioadă de 8 luni au fost vizitați în cadrul cabinetului de chirurgie 187 de pacienți. 83 dintre aceștia au fost repartizați grupului în care s-au folosit imagini ca metodă adjuvantă pentru a explica patologia chirurgicală asociată.

Dintre aceștia, 24 prezentau patologie tiroidiană, 24 hernii sau eventrații și 35 de pacienți patologia biliară. Majoritatea pacienților din acest grup (mai mult de 80%) s-au arătat foarte multumiți de folosirea imaginilor în a completa explicațiile medicului curant. Durata medie a vizitei medicale în cazul acestui grup nu a fost prelungită.

Discuții: În ciuda existenței unei diversități de variabile care pot influenta satisfacția pacientului, folosirea imaginilor în cabinetul de chirurgie pentru ilustra patologia chirurgicală îmbunătățește comunicarea medic-pacient.

Concluzii: O bună relație medic-pacient este fundamentală în cazul pacienților chirurgicali ambulatorii și de asemenea este un factor determinant al realizării unei bune anamneze. Folosirea imaginilor în timpul vizitei medicale îmbunătățește comunicarea medic-pacient. Mai mult, pacienții sunt multumiți și de asemenea se ameliorează capacitatea de a înțelege afecțiunea de care suferă și tratamentul chirurgical necesar în fiecare caz.

Cuvinte cheie: abilități de comunicare, chirurgie, evaluare, imagini, pacient ambulatoriu

## Abstract

Introduction: The interviews and interactions with patients are part of everyday health care provider. However, there is sometimes a difficulty in communication, linked to several factors. For this reason, the use of images to illustrate the medical conditions in the outpatient clinic can improve patient communication. We report our initial experience with the use of images to manage the quality of care to surigcal patients.

Methodology: He used a computer to show pictures of the following conditions: surgery for an inguinal hernia,

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cholelithiasis, cholecystitis and the choledocholithiasis and finally thyroid pathology. Were randomized two groups of patients. Each of the affected patients in any stage of the disease, they explained their problems. In one of the groups also showed the patient was using the current image and continued to give appropriate explanations related to pathology. Thereafter, patients in both groups filled in an anonymous questionnaire in which they responded to what degree it was considered useful this methodology, and degree of satisfaction received outpatient treatment with or without the deployment of images by computer. We have analyzed the average time expected and made a visit.

Results: 187 patients will be visited in the consultations over a period of 8 months. In 83 patients have been using images to give the explanations in external consultations. Of these, 24 patients suffering from thyroid, 24 hernias or incisional hernias and 35 patients with biliary tract pathology. Patients in the group were shown images of conditions have responded mostly be very satisfied with the use of images while the explanations are given on the patient's illness. Also, over 80% of patients report being satisfied with this system. The visiting time was not lengthened.

*Discussion:* Despite the existence of different variables that can influence patient satisfaction, use of images to illustrate surgical diseases to patients improves communication and flow of the explanations of the physician.

Conclusions: The relationship doctor-patient communication is the key event in an outpatient setting. It determines a good overall result of the clinical interview. The use of images in an outpatient improves communication between patients and doctors. Moreover, the degree of satisfaction is high and the degree of understanding of the disease. It seems useful to incorporate in our outpatient clinic.

Key words: communication skills, surgery, evaluation, imaging, outpatient clinic

## Introduction

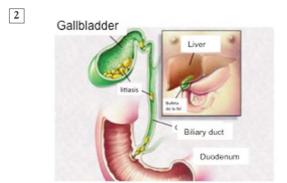
The physician or surgeon, to accommodate part of their teaching, training, devotes a significant portion of their time to clinical interview with patients. This act includes an endless clinical terminology that can escape the patient, for obvious reasons but must be analyzed by professionals that addresses the patient. Increasingly, patients and society in general have greater access to information and it seems logical that it should be reported with greater clarity and competence to our patients. In addition many of the decisions that will take a health care professional should be supported and endorsed by the patient who is required increasingly greater degree of involvement in decisions about their health. For this reason, the use of images to illustrate the medical conditions in the outpatient clinic may be helpful. The aim of this study is to determine the influence of the use of information and

Liver
Hepatic duct
Cistic duct
Gallbladder
Stomach
Duodenum
Biliary duct
Pancreas
Small bowel

1

3

Liver, Pancreas, Stomach, gallblader



Cholelithiasis, coledoclithiasis

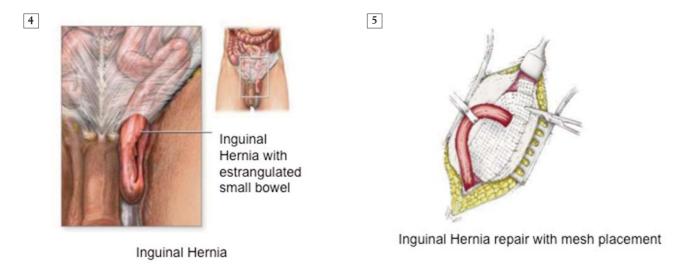


Figures 1-3. These images are used to explain the pathology of the biliary tract of patients

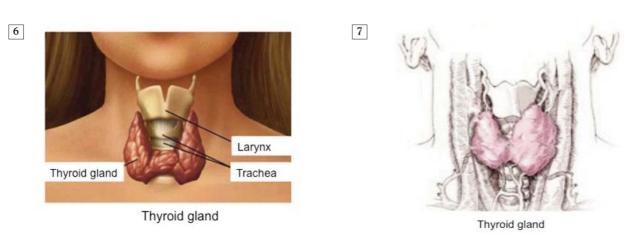
images to managing the quality of care to patients in an outpatient surgery.

## **Patients and Methods**

For this study, we used a computer installed in the outpatient surgery to show the images of pathologies. Images were used for each of the following conditions: surgery of inguinal hernia, cholelithiasis, cholecystitis and choledocholithiasis and finally the pathology of the thyroid. Showing some of the images used in the query (Fig. 1-7). We randomized two groups of patients.



Figures 4-5. These images are used to explain the pathology of the inguinal hernia



Figures 6-7. These images are used to explain the pathology of the thyroid

Each of the affected patients in any stage of the disease, was visited and they explained their problems. In addition, one of the groups of patients was visited with images showing him the current situation and continued to give the necessary explanations related to pathology. Thereafter, patients in both groups filled in an anonymous questionnaire in responding to what extent it was considered useful this methodology, and degree of satisfaction in outpatient treatment received with or without the implementation of images by computer. We analyzed the average time expected to see a patient.

## **Results**

187 patients were visited in the consultations for a period of eight months. 83 patients were interviewed using images (Images Group or IG) to be accompanied by appropriate external consultations and 100 belonged to the group of patients visited without images (Group Without Images or GWI). Of these, 45 patients were men in the IG and 61 of GWI.

The average age group was 44.5 years in IG and 50.2 years in the GWI.

Of all patients, 46 patients with thyroid cancer (IG 24 and 22 of GWI), 65 hernia or eventration (IG 24 and 41 of GWI) and 72 patients with biliary pathology (35 and 37 IG GWI). The average education level of patients was asked and is summarized in *Table 1*. There were no differences between the two groups in relation to media studies made by patients. Also, there were no differences between the two groups in any of the descriptive parameters described in *Table 1*.

The majority of patients have responded very satisfied with the use of images while giving explanations on the patient's illness. Likewise, over 80% of patients report being satisfied with this system. The time to visit is not long.

Only 4% of patients have referred are not satisfied with the visit, being the degree of satisfaction with the explanations very bad or bad. However, over 80% of patients report being satisfied with the explanations, whether or not the use of images. But when we analyze the implications that can have

**Table 1.** Descriptive parameters are described in the two groups analyzed

	Use of images	Explanations without images
Patients (n)	83	100
Gender (M/F)	45 / 38	61 / 39
Age (years)	44,5	50,2
Pathology reported to patients:		
- Thyroid	24	22
- Hernia	24	41
- Cholelithiasis, acute cholecystiti	s	
and choledocholithiasis	35	37
Media Studies:		
- No studies	23	21
- Primary incomplete	15	19
- 2nd grade	18	23
- University degree half	16	20
- University Degree	11	17

images, we see that 37.4% of patients referred to IG an excellent level of satisfaction compared with 15% of GWI Group. Over 90% of patients questioned believe that the use of images can improve performance in an outpatient clinic. (Table 2)

#### Discussion

The current medicine and surgery have experienced unprecedented technological growth in the last 20 years. This manea, not infrequently appear in our media, increasingly pervasive in society, all information related to health. For this reason, the association of doctor-patient that ties it to a contractual act requires a difficult and complex rapport. There are several factors described above explaining that he should give more and more importance to these communicative acts. The doctor has become a leading employee mainly in the loss of professional identity. There are doctors who feel uncomfortable with the challenge of regulating itself and accountable to a society that increasingly exerts its empowerment (1). In addition, many of our patients have a university degree training. Specifically, 29% of patients seen at the consultation in this study were patients with an intermediate or advanced college degree. Thus, there are many professionals who are experts in their fields of activity and expertise. This plea requires adjustment in order to get personal with good information to the patient, so as to be able to make good interpersonal communication. For this, it requires good professional skills, that are traditionally understood as a capacity to use knowledge and skills to solve problems that arise in the course of clinical practice (2). However, experts now define the medical expertise more broadly, including not only knowledge but also scientific evidence, the emotions that may involve situations of patients, personal values and patients all to swell the reflection in the interest of the patient and society (3-5). Some studies have shown how questions via questionnaires can influence patients in the act of communication in such important diseases as

**Table 2.** Results of the questions posed to patients in relation to the degree of satisfaction according to the group of patients

	Use of images	Explanations without images
Patients (n)	83	100
Degree of satisfaction with the		
explanations:		
- Very Bad	0 (0%)	2 (2,0%)
- Poor	2 (2,1%)	4 (4,0%)
- Regular	4 (4,9%)	3 (3,0%)
- Well	20 (24,2%)	44 (34,0%)
- Very good	26 (31,4%)	32 (32,0%)
- Excellent	31 (37,4%)	15 (15%)
Think you can get more performation	nce	
from the consultation with the	use	
of images? (Yes / No)	78/5	93/7

breast cancer or ovarian cancer (6). Studies like this show and demonstrate that care must be taken when considering the communication with patients and that the same wording of questions can induce doubts, stress or otherwise decision-making by patients biased. The implementation of new technologies in various fields of science and technology has become a reality, and there has been less in the field of medicine and especially in diagnostic radiology. (7) Applications have also been developed to better understand the different diseases of the patients (8). However, it seems that images can be interpreted by the physician is not always just get to other physicians treating the same patient and the patient himself alone.

Another form of work that has been developed thanks to advances in new technologies has been the telemedicine, which allows to communicate over distances. It has been implemented in many areas and without a doubt changed the doctor-patient relationship. Thus, not only telemedicine will enable us to discuss clinical cases among professionals located miles away, but also to operate and move the patients postoperative visit (9, 10).

Although there are other variables that affect patient satisfaction, some related to the severity of the disease or the number of visits made before, or other optional self-specific, such as the degree of empathy demonstrated (11) or non-management style (12), we have focused on the use of images to facilitate communication with the patient. A review of several studies shows that include images in oral and written communication can increase attention, understanding and patient adherence to treatment (13). It is therefore important to develop and analyze accurately the real emotional impact and influence of the use of images for explanations to aid patients in understanding and making decisions. (14)

## Conclusion

The use of images to describe, locate, explain a disease is useful in our experience. It makes no waste of time. Patients

have been satisfied with this information system in patient consultations. We believe there may be a useful system to implement in our outpatient clinic.

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