

# Use of video in flexible cystoscopy: a prospective randomised study of effect on patient experience

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## Abstract

**Objective:** To determine whether the use of video during flexible cystoscopy affects patient experience and understanding of investigation findings.

**Patients and methods:** One hundred thirty five consecutive patients, listed for flexible cystoscopy, were randomised to two groups; cystoscopy with or without video viewing. Levels of patient anxiety, pain on scope insertion, pain during examination and understanding of examination findings were assessed by questionnaire.

**Results:** Pain scores during examination were significantly lower in the video group. There was a highly significant difference in patient's ability to correctly describe the findings favouring the video group.

**Conclusion:** Use of video during flexible cystoscopy improves patient understanding of examination findings and helps to alleviate pain during the examination.

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**Keywords:** Flexible cystoscopy; Bladder; Patient empowerment

## 1. Introduction

Flexible cystoscopy under local anaesthetic has become a routine out-patient procedure. It has reduced the reliance on its rigid counterpart with its higher morbidity and longer hospital stay [1]. The use of a video screen allows the patient to gain a 'surgeons view'. The aim of this study was to examine whether video during cystoscopy would affect anxiety and pain experienced and also improve patient understanding of the findings.

## 2. Patients and methods

One hundred thirty five consecutive patients listed for diagnostic and follow up flexible cystoscopy were randomised into two groups prospectively; those offered a video mon-

itor to view the procedure and those who were not. Both groups underwent a standard cystoscopy in day theatre performed by the same clinician using topical 2% lidocaine gel. Patients were then asked to complete a confidential questionnaire prior to leaving the day unit. This enquired about anxiety (four point descriptive score), pain on insertion of the scope, pain during examination (visual analogue score 1–10) and whether the patient understood the findings. Each patient was also asked to describe what was found. The doctor performing the procedure kept a logbook of the actual findings and these were compared with the questionnaires at the end of the trial. Due to skewed data distribution the Mann–Whitney and Fisher's exact tests were used for analysis (see Table 1).

## 3. Results

All 135 patients completed the questionnaire. The two groups were well matched for age and experience of flex-

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Table 1  
Group details

	Video	No video
Number of patients	62	67
Mean age (years)	63.8	64.2
Diagnostic cystoscopy ( <i>n</i> )	48	50
Follow-up cystoscopy ( <i>n</i> )	14	17

Table 2  
Pain experienced during cystoscopy (10-point analogue score)

Pain	Video ( <i>N</i> = 62)	No video ( <i>N</i> = 67)
<b>Insertion</b>		
None (1)	41.9% (26)	38.8% (26)
Mild (2–3)	35.5% (22)	35.8% (24)
Moderate (4–6)	17.8% (11)	23.9% (16)
Severe (7–10)	4.8% (3)	1.5% (1)
<b>Examination</b>		
None (1)	56.5% (35)	40.3% (27)
Mild (2–3)	35.5% (22)	40.3% (27)
Moderate (4–6)	6.4% (4)	14.9% (10)
Severe (7–10)	1.6% (1)	4.5% (3)

Table 3  
Patient anxiety (4-point analogue score)

Anxiety score	Video ( <i>N</i> = 62)	No video ( <i>N</i> = 67)
None (1)	56.5% (35)	44.8% (30)
Mild (2)	25.8% (26)	32.8% (22)
Moderate (3)	16.1% (10)	16.4% (11)
Severe (4)	1.6% (1)	6.0% (4)

ible cystoscopy. In the video group, six patients declined viewing and these were excluded from analysis. Video viewing had no effect on pain experienced during insertion ( $P = 0.79$ ; range 1–8, both groups). However, there was a significant reduction in pain during bladder examination with video ( $P = 0.028$ ; range 1–8, both groups) (Table 2). There was no significant difference in anxiety scores between the two groups ( $P = 0.189$ ) (Table 3). The number of patients whose descriptions correlated with actual procedure findings was significantly higher in the video group ( $P < 0.001$ ) (Table 4). However, no significant difference was found

Table 4  
Patient comprehension

	Video ( <i>N</i> = 62)	No video ( <i>N</i> = 67)
<b>Patient understanding</b>		
Yes	96.8% (60)	89.6% (60)
No	3.2% (2)	10.4% (7)
<b>Correct description</b>		
Yes	96.8% (60)	71.6% (48)
No	2.9% (2)	28.4% (19)

when patients were asked if they understood what was found ( $P = 0.167$ ).

#### 4. Discussion

The significantly lower pain scores during examination in the video group would suggest that video screens provide an effective distraction. One would expect reduction in pain to be mirrored by less anxiety. This was not shown by our data. The anxiety scores were generally low in both groups (median scores: video = 1, no video = 2) Good pre-procedural staff–patient communication and use of information leaflets may account for this.

Our data indicates, when video is not available, that patients tend to falsely believe they understand the examination findings. Video markedly improved patient understanding of actual findings.

Video camera equipment is approximately £15,000 to purchase. This is a small price if one considers the considerable relief on in-patient services that the introduction of flexible cystoscopy has allowed.

In certain instances the use of video is not appropriate. Some patients do not wish to know what is going on. In this study, 8.8% of patients, who were offered visualisation, declined.

Using a camera may slightly lengthen the time taken to perform cystoscopy. The clinician explaining the findings to the patient during rather than after the procedure may offset this.

Studies to date on ways to improve patient satisfaction of flexible cystoscopy have primarily focused on determining the optimum use of topical anaesthetic gel [2]. This study suggests that video viewing is a useful tool in improving clinician–patient communication and reduces pain experienced during bladder examination. We recommend that it be used as part of standard cystoscopy practice.

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