

Table 1. Findings in 33 Cases of Subacute Thyroiditis

Symptom	Number
Pharyngeal pain	28
Thyroid tenderness	26
Unexplained fatigue	24
Neck pain	21
Refractory to antibiotic therapy	12
Ear pain	11

clinic was not located in an area endemic for thyroid disease.

Comment

Woolner³ reported in 1957 a review of surgical specimens typical of subacute thyroiditis collected at the Mayo Clinic over 27 years, as well as cases diagnosed clinically over a five-year period. A total of 108 cases of subacute thyroiditis were found over the 27-year surgical experience review. During the years 1952 through 1956, 125 clinical diagnoses of subacute thyroiditis were recorded. During the same five-year period, 1,250 patients were seen with Graves' disease. McWhinney⁴ collected 10 cases of subacute thyroiditis in his general practice from 1954 to 1963 and encountered only one instance of autoimmune thyroiditis. In

1956 Detweiler² reported 38 cases of subacute thyroiditis among 2,000 patients.

The incidence of subacute thyroiditis reported in the present study reflects the frequency of subacute thyroiditis in relation to other thyroid diseases and suggests that subacute thyroiditis is, in fact, among the more common of thyroid disorders. Underrecognition or misdiagnosis of subacute thyroiditis has undoubtedly contributed to the low incidence figures reported elsewhere.⁵ The similar experience of Detweiler further suggests that most cases of subacute thyroiditis are either treated at the primary care level or resolve spontaneously and are consequently underrepresented in the case materials of secondary and tertiary care centers. Appreciation by primary care physicians of the frequency of subacute thyroiditis should enhance appropriate diagnostic efforts and therapy.

References

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Evaluation of the Patient-Centered Pelvic Examination

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The pelvic examination is a common office procedure in family practice that may be perceived by the patient as an unpleasant, uninteresting, and

anxiety-provoking experience. A perceived negative attitude by women toward the pelvic examination, along with women demanding more basic information concerning their bodies today, has aroused the interest and concern of many health care professionals.

This communication presents the results of a

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KLOTRIX®

(POTASSIUM CHLORIDE) SLOW-RELEASE TABLETS, 10 mEq

DESCRIPTION KLOTRIX is a film-coated (not enteric-coated) tablet containing 750 mg potassium chloride (equivalent to 10 mEq) in a wax matrix. This formulation is intended to provide a controlled release of potassium from the matrix to minimize the likelihood of producing high localized concentrations of potassium within the gastrointestinal tract.

INDICATIONS—BECAUSE OF REPORTS OF INTESTINAL AND GASTRIC ULCERATION AND BLEEDING WITH SLOW-RELEASE POTASSIUM CHLORIDE PREPARATIONS, THESE DRUGS SHOULD BE RESERVED FOR THOSE PATIENTS WHO CANNOT TOLERATE OR REFUSE TO TAKE LIQUID OR EFFERVESCENT POTASSIUM PREPARATIONS OR FOR PATIENTS IN WHOM THERE IS A PROBLEM OF COMPLIANCE WITH THESE PREPARATIONS.

1. For therapeutic use in patients with hypokalemia with or without metabolic alkalosis; in digitalis intoxication and in patients with hypokalemic familial periodic paralysis.
2. For prevention of potassium depletion when the dietary intake of potassium is inadequate in the following conditions: Patients receiving digitalis and diuretics for congestive heart failure; hepatic cirrhosis with ascites; states of aldosterone excess with normal renal function; potassium-losing nephropathy, and certain diarrheal states.
3. The use of potassium salts in patients receiving diuretics for uncomplicated essential hypertension is often unnecessary when such patients have a normal dietary pattern. Serum potassium should be checked periodically, however, and, if hypokalemia occurs, dietary supplementation with potassium-containing foods may be adequate to control milder cases. In more severe cases supplementation with potassium salts may be indicated.

CONTRAINDICATIONS In patients with hyperkalemia, since a further increase in serum potassium concentration in such patients can produce cardiac arrest. Hyperkalemia may complicate any of the following conditions: chronic renal failure, systemic acidosis such as diabetic acidosis, acute dehydration, extensive tissue breakdown as in severe burns, adrenal insufficiency, or the administration of a potassium-sparing diuretic (eg, spironolactone, triamterene). Wax-matrix potassium chloride preparations have produced esophageal ulceration in certain cardiac patients with esophageal compression due to enlarged left atrium.

All solid dosage forms of potassium supplements are contraindicated in any patient in whom there is cause for arrest or delay in tablet passage through the G.I. tract. In these instances, potassium supplementation should be with a liquid preparation.

WARNINGS Hyperkalemia: In patients with impaired mechanisms for excreting potassium, administration of potassium salts can produce hyperkalemia and cardiac arrest. This occurs most commonly in patients given potassium intravenously but may also occur when given orally. Potentially fatal hyperkalemia can develop rapidly and be asymptomatic. Use of potassium salts in patients with chronic renal disease, or any other condition which impairs potassium excretion requires particularly careful monitoring of the serum potassium concentration and appropriate dosage adjustment.

Interaction with potassium-sparing diuretics: Hypokalemia should not be treated by the concomitant administration of potassium salts and a potassium-sparing diuretic (eg, spironolactone or triamterene), since the simultaneous administration of these agents can produce severe hyperkalemia.

Gastrointestinal lesions: Potassium chloride tablets have produced stenotic and/or ulcerative lesions of the small bowel and deaths. These lesions are caused by a high localized concentration of potassium ion in the region of a rapidly dissolving tablet, which injures the bowel wall and thereby produces obstruction, hemorrhage, or perforation. KLOTRIX is a wax-matrix tablet formulated to provide a controlled rate of release of potassium chloride and thus to minimize the possibility of a high local concentration of potassium ion near the bowel wall. While the reported frequency of small-bowel lesions is much less with wax-matrix tablets (less than one per 100,000 patient-years) than with enteric-coated potassium chloride tablets (40-50 per 100,000 patient-years) cases associated with wax-matrix tablets have been reported both in foreign countries and in the United States. In addition, perhaps because the wax-matrix preparations are not enteric-coated and release potassium in the stomach, there have been reports of upper gastrointestinal bleeding associated with these products. The total number of gastrointestinal lesions remains less than one per 100,000 patient-years. KLOTRIX should be discontinued immediately and the possibility of bowel obstruction or perforation considered if severe vomiting, abdominal pain, distention, or gastrointestinal bleeding occurs.

Metabolic acidosis: Hypokalemia in patients with metabolic acidosis should be treated with an alkalinizing potassium salt such as potassium bicarbonate, potassium citrate, or potassium acetate.

PRECAUTIONS Potassium depletion is ordinarily diagnosed by demonstrating hypokalemia in a patient with a clinical history suggesting some cause for potassium depletion. In interpreting the serum potassium level, the physician should bear in mind that acute alkalosis *per se* can produce hypokalemia in the absence of a deficit in total body potassium, while acute acidosis *per se* can increase the serum potassium concentration into the normal range even in the presence of a reduced total body potassium. Treatment of potassium depletion particularly in presence of cardiac disease, renal disease, or acidosis, requires careful attention to acid-base balance and appropriate monitoring of serum electrolytes, electrocardiogram and clinical status of patient.

ADVERSE REACTIONS Most common to oral potassium salts: nausea, vomiting, abdominal discomfort, and diarrhea. These symptoms are due to irritation of the gastrointestinal tract and are best managed by diluting the preparation further, taking the dose with meals, or reducing the dose. One of the most severe adverse effects is hyperkalemia (see Contraindications and Warnings). There also have been reports of upper and lower gastrointestinal conditions including obstruction, bleeding, ulceration and perforation (see Contraindications and Warnings); other factors known to be associated with such conditions were present in many of these patients. Skin rash has been reported rarely.

DOSAGE AND ADMINISTRATION The usual dietary intake of potassium by the average adult is 40 to 80 mEq per day. Potassium depletion sufficient to cause hypokalemia usually requires the loss of 200 or more mEq of potassium from the total body store. Dosage must be adjusted to the individual needs of each patient but is typically in the range of 20 mEq per day for the prevention of hypokalemia to 40-100 mEq per day or more for the treatment of potassium depletion.

Note: KLOTRIX® slow-release tablets must be swallowed whole and never crushed or chewed. Following release of the potassium chloride, the expended wax matrix, which is not absorbed, may be observed in the stool.

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PELVIC EXAMINATION

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controlled study of a method that involves incorporating patient education into the procedure by allowing the patient to become an active participant in the examination through using a hand-held mirror and a running educational dialogue by the physician. No controlled study utilizing the mirror examination with a dialogue of instruction has been found to exist in the literature.

Methods

The working hypotheses of this study were that the patient-centered pelvic examination (1) increases patient relaxation and comfort, (2) creates a more knowledgeable patient in terms of anatomy and function of the female genitalia, and (3) is a well-accepted gynecologic procedure.

The project was conducted at two family practice offices of the University of Iowa Hospitals and Clinics. Thirty-nine women requesting a routine Pap smear and pelvic examination were randomized into control and study groups. Twenty patients in the control group underwent a routine pelvic examination and Pap smear using the traditional approach. This approach utilized the normal lithotomy position and routine draping, which prevents direct eye contact with the physician and precludes patient observation of the examination. Nineteen patients in the study group underwent a similar examination using the mirror technique and patient education. The mirror technique involved placing the patient in the lithotomy position with the head elevated approximately 60 to 90 degrees and allowing the patient to face the examining physician and observe the procedures with a hand-held mirror. A dialogue of instruction was used by the physician to point out and name the various anatomical structures along with their functions. Questions were encouraged to increase the patient's participation in the examination. The total time to complete the pelvic portion of the examination was recorded for both methods. Following the examination both patient groups were given questionnaires that included a subjective portion dealing with their comfort, relaxation, and attitudes, and an objective portion concerned with measuring their knowledge of anatomical structures. No patient declined to answer the questionnaire, and consent for the study was implied by the patients' willingness to complete and return the

questionnaire. After randomization, examinations of both groups were performed by either a second-year family practice resident physician or a family practice faculty physician. Only two physicians participated as examiners. The physicians also completed a questionnaire following each examination concerning their perception of the patient's level of anxiety, physical comfort, and interest. Two patients who declined use of the mirror technique were eliminated from the study.

Responses on the patient and physician questionnaires were recorded on a five-point forced-choice Likert scale. The data comparing the control and study groups were analyzed using the unpaired two-tailed *t* test. Data comparing perceived change in experiences from past to present examinations by the same patient were analyzed using a matched-pair two-tailed *t* test. A confidence level of $\alpha < .05$ was chosen for significance.

Results

There was no significant difference in age between the control and study groups. Occupations varied widely in both groups. The average number of previous pelvic examinations per patient within each group was not significantly different.

The control group patients had felt more relaxed than the study group patients during their past examinations. No difference was found between control and study groups concerning patient comfort during past pelvic examinations. There was also no difference between control and study groups concerning patient relaxation and comfort during the present examinations. When assessed for a change in relaxation and comfort from past examinations to the present examinations, the control group showed a significant change toward increased relaxation ($t = 3.32$, $P = .998$) and comfort ($t = 4.39$, $P = .999$). Likewise, in the study group relaxation ($t = 4.29$, $P = .999$) and comfort ($t = 3.92$, $P = .999$) improved from past to present examinations. When comparing these changes in relaxation from past to present examinations between both groups, the study group improved more in relaxation than the control group, nearly reaching significance ($t = 1.96$, $P = .971$). There was no similar trend in the improvement of comfort.

Both groups felt it was easy to ask questions during the examinations, and no significant difference was noted. There was also no difference in knowledge of anatomical structures between

groups as objectively assessed following the examinations in both groups. A statistically significant change was seen in the patients' subjective perception of new things learned about the anatomy of the female genitalia, with the study group feeling more was learned ($t = 4.70$, $P = .999$) during the present examinations.

Seventeen of the 20 control group patients (85 percent) felt that using a hand-held mirror would not have improved the examination, whereas 2 (15 percent) believed it would have improved it. One patient did not respond. Thirteen of the 19 study group patients (68 percent) preferred to use the mirror for their next examination, whereas 3 (16 percent) did not desire the mirror, and another 3 (16 percent) were uncertain. All 19 would recommend using the mirror to a friend. Eleven (58 percent) patients in the study group had used a mirror in a past pelvic examination. The mean time for the pelvic portion of the gynecologic examination was 3 minutes 8 seconds for the control patients and 4 minutes 24 seconds for the study patients.

No significant difference was found between the groups in terms of physician perception of patient relaxation and comfort. Using unsolicited feedback from the patients as a measure, the physicians observed more participation and cooperation and more enthusiasm during the examination of the study group patients. The total number of questions was significantly higher in the study group patients than in the control group patients.

Only one of the three hypotheses was well supported by the data: The patient-centered pelvic examination (1) did not subjectively increase patient relaxation and comfort, although there was a trend for greater change in relaxation; (2) did not objectively create a more knowledgeable patient in this sample group, but subjectively it was a learning experience; but (3) was, however, well accepted by the patient, as reflected by the majority of women expressing interest in using the mirror again and in recommending it to their friends. A positive finding of the study was that the patient-centered gynecologic examination encouraged more communication. There was no increase in stress or discomfort in the patient that could be measured by this study when she was included as an active participant in the examination. Further study of the mirror technique accompanied by patient education during the pelvic examination is recommended.