The Pediatric Lap Examination

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The lap examination has been found to be an excellent technique for the physical examination of the child from infancy to four years of age. The key features of the examination include the opportunity to observe the functioning of the parent-child emotional system, the ease of control of the child, and the optimal exposure of organs and functions to be evaluated. Although the lap examination seems to facilitate the physical examination, its special merit exists in the opportunity which it affords the family physician to document the parent-child emotional relationship.

The physical examination of the child from infancy to four years of age is a challenge for the family physician. He is frequently dealing with either a hypermobile infant or the impossible negativism of the two- or three-year-old. A solution to many of the problems of the examination of this age group is the lap examination. The advantages of this technique usually include improved patient security and cooperation. In addition, critical and otherwise inaccessible information concerning the function of the parent-child emotional relationship may be easily gained.

The examination is initiated by the nurse who notes appropriate data in the chart. The nurse then invites the parent to undress the child and to take the child's temperature. This has been found to be a valuable educational experience for the parent, especially if the examination is being made on a first-born child. The nurse is instructed to ask if the parent has had any experience in taking rectal temperatures; if not, the nurse will then proceed to demonstrate the correct technique for positioning the child and taking the rectal temperature. This training has proven its worth in the accuracy and regularity with which a temperature report is

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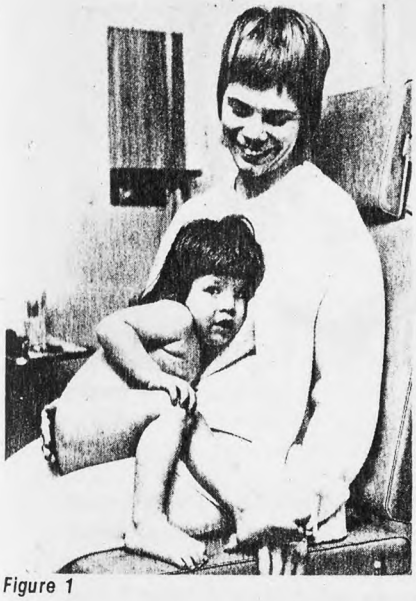

Figure 1

Figure 2

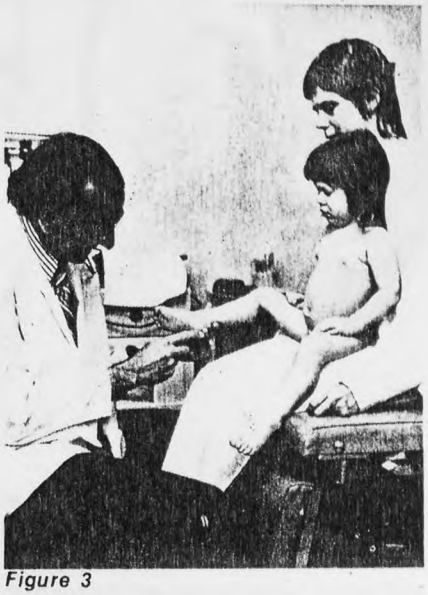

Figure 3

made when the parent calls in to the office with information on the child's illness.

When the nurse's examination is completed and a delay is anticipated before the doctor arrives, care should be taken that the child is warm and comfortable. The parent is asked to hold the non-ambulatory child, but the ambulatory child is allowed to explore the examining room under the parent's supervision.

The doctor's entry into the examining room should not be made with haste, and he should maintain a friendly, warm, unhurried and informal attitude.[1] The doctor's introductory remarks and history-taking are best done with the child held on the parent's lap. Some doctors document the history prior to the examination while others gather data during the examination. Whichever course is taken, the lap examination offers the physician an opportunity to gather valuable information on the parent-child relationship.

Observations of the parent's caretaking activities will contribute to the doctor's knowledge of the parent-child adaptation. Figure 1 shows the mother in an "en face" position. This has been shown to be one of the acts of fondling which reflects the warmth of the parent's caretaking role.[2] Other fondling activities which may be observed are stroking, kissing, bouncing or cuddling. The physician may also observe activities which reflect a hostile or rejecting parent. The body positions of the parent and child may be erect and separate as opposed to being mutually inclined or joined. The parent's hand movements may be rapid and harsh, rather than gentle and caressing, or the voice may be firm and commanding rather than soft and guiding. Observations of the parent's caretaking habits should be carried out throughout the examination.

To initiate the physical examination of the pre-ambulatory child, the parent is instructed to hold the child upright while the physician evaluates feet position, head position, and body symmetry. If the child is ambulatory, the child is placed on the floor and asked to follow the parent across the room. This procedure affords the doctor the opportunity to observe the child's gait, feet position, motor coordination, balance and body symmetry (figure 3).

The parent then "gathers the child in" and resumes the sitting position. The lap examination maximizes the parent's participation. At each stage of the examination, the child is maintained in close contact with his parent. When body control of the child is needed, it is established by the firm, familiar hands of the parent. Figure 3 shows the doctor posi-

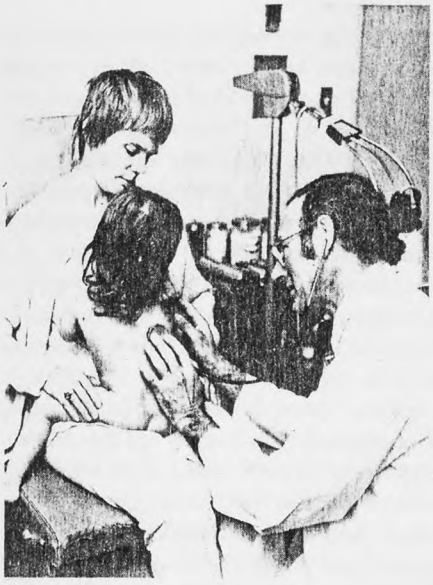

Figure 4

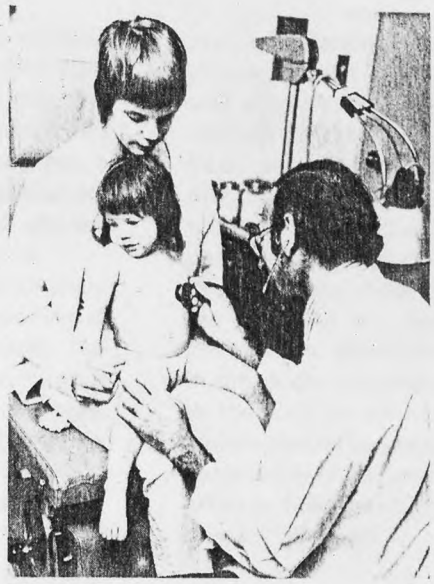

Figure 5

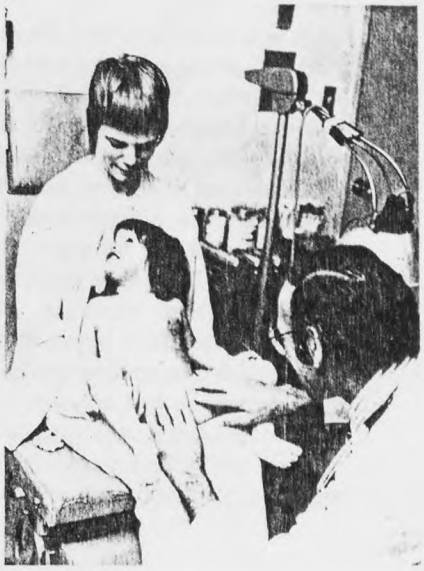

Figure 6

tioned in front of the patient ready to begin a sequential examination of the child from toe to head. The examination may be introduced to the child by playful treatment of the toes. Since this activity has usually been experienced by the child in a comfortable and familiar environment, toe and feet play at the onset of the examination tends to relieve the child's anxiety. Games doctors play with children represent an important modality for the relief of anxiety in the child and parent. It is essential, however, that when oral communication is possible, the child and parent should be given verbal preparation for the next step in the examination. Reassuring comments should include "this will not hurt," "this will not be easy, but it will be over quickly," "almost finished" and "all done."

Inspection and palpation are the initial techniques used by the examiner. Examination procedures which may cause discomfort such as the check for congenital dislocation of the hips should be left to near the end of the examination. With the child in the lap position all significant joints are evaluated for range of motion capability. Hands and feet are inspected for color, clubbing and congenital defects. Peripheral pulses are palpated. These procedures are followed by palpation of the nodes of the inguinal, axillary and cervical region.

Figure 4 shows the technique used to check the genitalia and anus. Ease of exposure and comfort of position simplify this part of the examination. The incidence of discovery of sealed labia and anal fissures has been found to be higher with this examination technique. The lap position is maintained while sequential examination is made of the abdomen, chest, back and head.

During the portion of the examination when the physician is involved in the movement of the child's extremities and application of pressure to the child's body, close attention should be paid to changes that may occur in the child's facial expression, body activity or cry. Changes in the facial expression may reflect a focal area of discomfort. Body movements should be evaluated for hypo- or hyperactivity. The infant's cry should be studied because it is programmed for various responses, such as anger, hunger, defiance or pain. The physician who attunes his ear to the character of the infant's cry may gain valuable information. Some crying patterns signify behavioral attitudes, but others such as the high-pitched cry of the brain-injured infant and the hoarse, low-pitched cry of the infant with hypothyroidism are critical messages of a serious pathological state.

Figures 5 and 6 show the positions for auscultation. It is recommended that the child be allowed to feel the instrument prior to its use.[3] The child may realize some relief of anxiety if instruments are used as part of game-playing activity (e.g., suggest that the child try to blow out the otoscope light). The physician may gain additional cooperation from the child by demonstrating on his own body how the instrument is placed (e.g., the physician may place the otoscope to his own ear).

Figure 7 shows the child in a well-controlled position for the examination of the ears. Since minimal motion is essen-

tial for the child's safety, the parent is instructed to maintain firm pressure on the child's head against his or her own body. The child's arm is held down and against his side. This control leaves the physician free to handle his instruments and to manipulate the child's ear for improved visualization of the tympanic membrane. For the right ear examination, the parent's left hand is used on the child's head, and the procedure is reversed for the left ear examination.

Figure 8 demonstrates the final phase of the examination. Since this may prove to be the most unpleasant portion of the examination, it should be completed expeditiously. The child is placed in a supine position and an abdominal examination. Should the child prove unable to cooperate over his head and the parent is instructed to hold the arms firmly against the child's ears. This prevents head movement by the child. The physician then positions himself so that his elbows are on the examination table and close to the child's side. This prevents the child's body from moving. Ophthalmoscopic examination may be attempted at this point, although with a cooperative child the examination of the optic fundi are best carried out with the child sitting on the parent's lap.

For the oral examination the physician should check in sequence the gums, teeth, tongue, and throat. The tongue blade should not be forced into the mouth. If the child resists the introduction of the tongue blade, gentle pressure between the alveolar ridges behind the teeth usually results in a rapid opening of the mouth. This maneuver may result in only a partial introduction of the tongue blade. Coercion and force are not necessary for the bite will diminish as the child tires. After about 30-40 seconds the tongue blade may be advanced with moderate ease. A gag reflex allows for the examination of the tonsils and posterior pharynx. It is recommended that when communication with the child is possible, a request should be made for cooperation during the mouth and throat examination. Many children will give the physician the necessary exposure to complete this examination. Should the child prove unable to cooperate in the throat examination, an explanation should be made to the child of the need to proceed and maximum body control should be obtained as demonstrated in Figure 8. On completion of this portion of the examination, the parent is asked to hold the child, who is reassured that the examination is "all done."

References

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3. Nelson WE, Vaugn VC, McKay R. Textbook of Pediatrics (9th Edition). Philadelphia, W. B. Saunders, 1969.

Figure 7

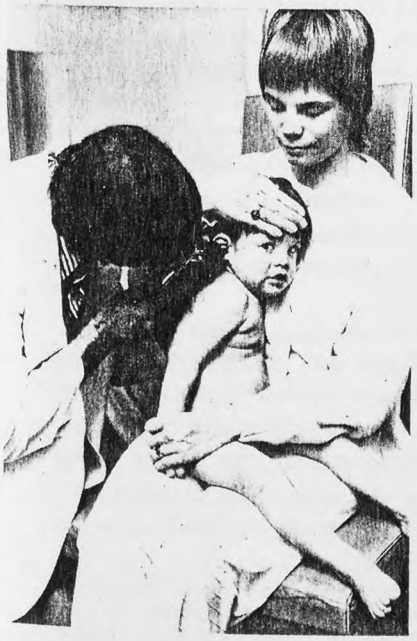

Figure 8