Family Practice Grand Rounds

Understanding Teenage Pregnancy: A Focused Family Interview

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At the Department of Family Medicine at Case Western Reserve University, members of the clinical programs (Cleveland Metropolitan General Hospital, Fairview General Hospital, and University Hospitals of Cleveland) meet monthly for interdepartmental grand rounds. The format for these rounds includes a family presentation, a brief family interview, and discussion of the family and its problems. We have developed guidelines for conducting this brief family interview and integrating interview material into Family Medicine Grand Rounds (Boekelheide PD, Poliner JR: Focused family interview, 1980, unpublished).

We have chosen here to present our interdisciplinary team evaluation of a particular family problem, adolescent sexuality. In this condensed text Dr. Boekelheide reviews the family interview, commenting both on interviewing technique and on some common themes in adolescent pregnancy. Our panel of discussants addresses several aspects of adolescent pregnancy, from individual medical problems, to family issues, and finally community problems.

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Summary of Family Presentation

DR. JAY POLINER (*Senior resident in family medicine, University Hospital*): The A. family, an inner-city four-generation family, faces many psychobiosocial issues; most important are interdependence and conflict in relationships, absence of fathering, recurrence of teenage pregnancies, frequency of changing households, and strivings for upward mobility. The family tree is shown in Figure 1.

Sally's sister, Dora, was the first family member referred to the Family Practice Center at University Hospitals for the care of her young daughter. Shortly thereafter Mrs. A. joined the practice, expressing dissatisfaction with her previous medical care. Then 15-year-old Sally began her prenatal care at 14 weeks gestation; she had no history of previous medical problems. Prenatal examination was unremarkable. Neither she nor her mother wished to abort the pregnancy. No information was available about the father of this baby.

Sally lives with her mother, older sister Linda, and brother-in-law Randy in a three-bedroom apartment. Mrs. A.'s medical problems include insulin-dependent adult onset diabetes, chronic anxiety, obesity, hypertension, recurrent abdominal pain, degenerative arthritis, and cataracts; she has worked as an aide in a program for pregnant adolescents, but is currently unemployed. Dora, supported by the family minister, refused to have either of her pregnancies at ages 13 and 15 termi-

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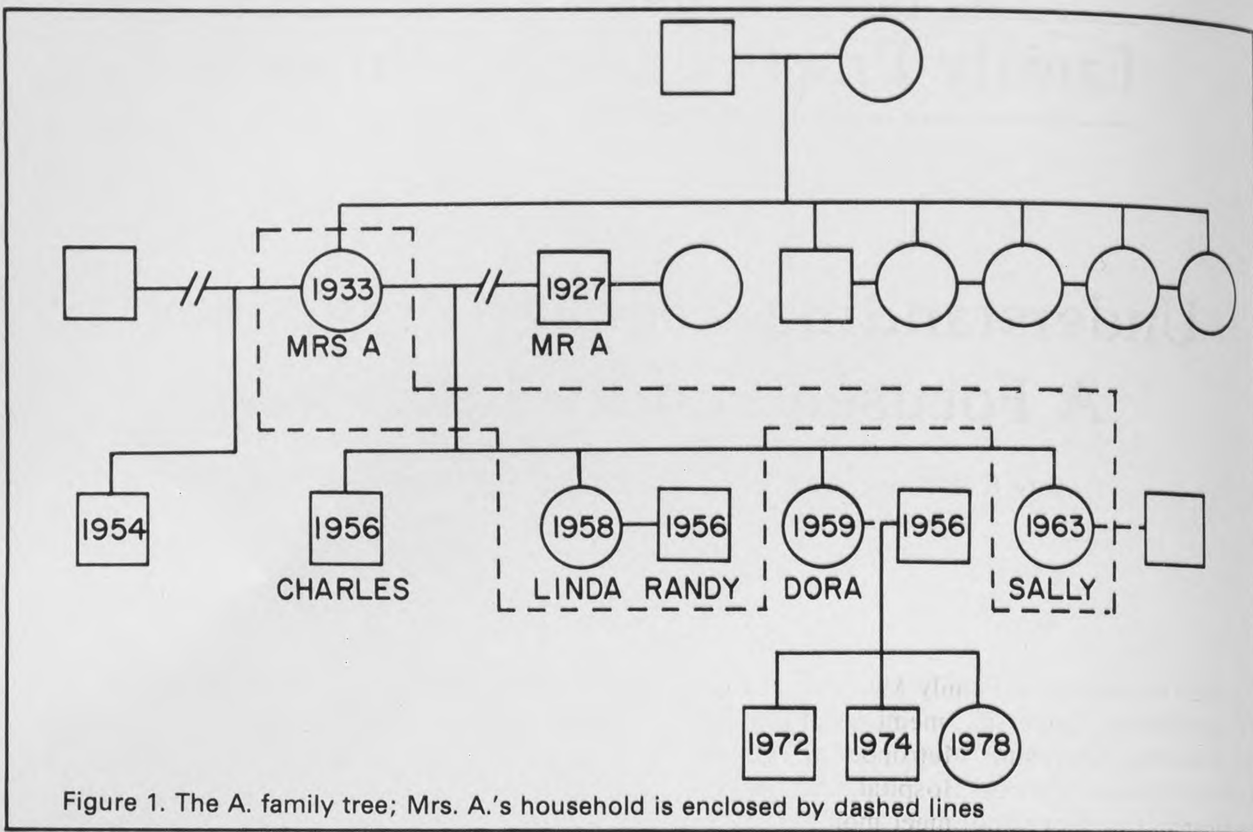

Figure 1. The A. family tree; Mrs. A.'s household is enclosed by dashed lines

nated. Neither of Sally's older sisters completed her secondary education.

MRS. ANTONNETTE GRAHAM *(MSW, Senior instructor of family medicine):* When I was asked by Dr. Poliner to see Sally and Mrs. A., I thought it would be useful initially to assess how the family was dealing with Sally's pregnancy and how they communicated with each other. An appointment was set for Sally and Mrs. A., but Mrs. A. came to see me alone. Sally's pregnancy was obviously not the mother's first priority; furnishing her new apartment and returning to work took precedence. Mrs. A. emphasized that she had offered all her children contraception information, had been through Dora's pregnancies, and had few doubts that the family would manage during Sally's.

In the initial joint visit of mother and daughter, it was apparent that Sally was able to voice her opinions, and that communication was open between them; Sally appeared, however, to be very dependent upon her mother. She had quit school and was spending her days alone with her mother in the apartment.

Sally wanted to finish school, but didn't want to attend her former school. We made plans for Sally to attend an alternative school, which offered counseling, academic studies, home skills, and child-care activities. Because of the high drop-out rate among teenage mothers, keeping Sally in school would be important.

MS. HEATHER FLETCHER *(MS, Consultant in nutrition)*: Nutritionally, Sally was at high risk, with low body weight, poor food habits, and irregular eating patterns. Poor cooking facilities, low income, and dislike of milk made it difficult to intervene towards the optimal high protein (80-90 gm), high caloric (2,700 cal) diet that could increase birth weight.

Peer pressure may make it difficult to alter adolescent eating patterns.[1] Underweight pregnant adolescents, who can still grow over several more years, may need to follow a different weight curve than that commonly used for pregnant adults.

Focused Family Interview

Sally and her mother were interviewed together before our audience by Dr. Boekelheide for approximately 25 minutes. The following excerpts, from six foci of the interview, demonstrate important themes and techniques.

Introduction

DR. PRISCILLA DAY BOEKELHEIDE *(Associate Professor, Department of Psychiatry, University of North Carolina, Chapel Hill)*: This morning I'm going to be talking with you a little while. I am a visitor who is very much interested in programs for pregnant young women. I thought I would like to talk to you, Sally, and your mother to give our audience some idea about your feeling toward your pregnancy, what this is like for both of you, and how this fits into your life. Maybe we can start, Sally, by having you tell us how old you are, where you live, and such information.

[Goals: (1) introduce the interviewer, family, and audience to the purpose of the interview; (2) develop rapport; (3) focus on the material pertinent to the learning objectives. Start with concrete, non-anxiety provoking material.]

SALLY: I'm 15 years old and live on Bell Street on the east side of Cleveland.

MRS. A.: I worked for five years in a program similar to the one that I think you have been talking about. I was with teenagers who were pregnant and were Sally's age and much younger, from ages 10 through 18. When Sally got pregnant, it was difficult for me because I've always witnessed other girls and not my own daughter. I'm a diabetic with high blood pressure, and am very nervous. Since Sally has told me that she was pregnant, I have been able to work with her with the social worker's and doctor's help.

[Mrs. A. includes herself in this concentration on teenage pregnancy and feelings.]

DR. BOEKELHEIDE: It sounds like you've been able to work pretty well with her, Mrs. A. How about you, Sally? How are you doing in this situation?

[The interviewer acknowledges Mrs. A. and refocuses on Sally.]

The family drama is developed as the interview progresses. It points in turn toward the changing household composition over most recent years; Sally's role as babysitter; and her immediate plans, worked out with her physician and social worker. The interview moves to more anxiety provoking areas.

Resistance

DR. BOEKELHEIDE: Can we now concentrate on the beginning of your pregnancy—things of that sort? I hope that some of the questions I will ask won't bother you too much, Sally. Can you tell me a little bit about your sexual experience with this particular person? I know that's going to be difficult, maybe embarrassing, to do in front of mother.

SALLY: I don't like to talk about that too much.

[As soon as resistance is met, the interviewer moves to less affective material.]

Sally gives facts about her early pregnancy, acknowledges fear of informing her mother, then cites her young age as a disadvantage, just as Dora's was. Mrs. A. uses this reference to Dora to refocus on herself.

MRS. A.: Dora had her baby when she was 13. She told me that she wanted to try sex. I almost went berserk and was wanting to shoot her. When you're working with other children and something happens to your own child, it really hurts. What information I was getting working at the program I was bringing home to my children and teaching them. The home at that time was not complete, because I had to be both mother and father, my husband having already left at that point. It was hard to work with three girls and two boys and get them to school every day.

[Mrs. A. needs more attention, but stays within her feelings.]

DR. BOEKELHEIDE: We've heard your mother's version here. Can we hear your version of what it was like for you, Sally? What were the things that you saw in Dora that you were scared about for yourself? You were scared to tell mother, but you were also somewhat scared when you thought of the things that might be in store for you?

[The interviewer makes content bridges from mother to daughter.]

SALLY: Well, Dora liked to go places and would leave the baby with me to take care of. I watched my mother spend more time with Dora than with

my older sister Linda.
[Sally identifies her dependent needs in a competitive way.]

Family Relationships

Initially, Sally had considered giving the baby to her childless sister, Linda, "but her husband really wants his own baby." With staff intervention, the family aided in arranging for an aunt to babysit so that Sally could return to school and Mrs. A. to her work. Family relationships are further explored.

SALLY: I just came home yesterday from my sister Dora's. My mother gets kind of scared without me.

MRS. A.: I live in a strange place and it's scary at night. I sleep during the day and watch TV at night. . . . Linda and I don't talk too much. She's a quiet person. She and her husband are very close.
[Mutual dependency is clarified.]

DR. BOEKELHEIDE: You and Sally are more like buddies, then? How do you feel about that, Sally? You left Dora with her three children. . . .

SALLY: Well, I was missing my mother and she's always somewhat sick. I would be worried about her. I have to call her on the phone almost every day.

MRS. A.: She's home most of the time when I'm ill. She wanted to spend the weekend with Dora and her children. She wanted me to go with her this time, but I soon get tired of the children. You know, I love them to death, but they worry me some of the time.

Family History

DR. BOEKELHEIDE: Can you tell us a little bit, Mrs. A., about when you were growing up? What was that like for you?
[Asking for past family history reveals parallels through four generations: large families; role assignment of babysitting; and fatherless homes.]

MRS. A.: I grew up on a farm in Mississippi with 200 acres of land. I was a horseback rider and I liked to ride horses. I was kind of a tomboy. I went to a rural school. There were six girls and a boy. I was the second oldest.

DR. BOEKELHEIDE: What was your duty with those brothers and sisters?

MRS. A.: Well, I used to babysit for my mother. I was left in complete charge of the children. Everyone had their chores to do. It was a good life in the country for us and I enjoyed it.

DR. BOEKELHEIDE: So you were second in your family and took care of the others? Now, here's Sally, the youngest one, taking care of some of those nieces and nephews.
[Babies and babysitting roles are selected as the connecting link.]

SALLY: I get more attention. I can always get out of chores by whining or offering to babysit for my sisters.

Pertinent Personal History

When asked about fantasies concerning babies and having a family, Sally states wistfully that she had not planned to get pregnant until she was 25, and never wants to marry. Mrs. A. states her disapproval once again, and Sally appears depressed. The interviewer explores the extent of depression, learns of no current major symptoms, but, instead, learns of Sally's sadness and embarrassment over telling favorite brother Charles about her pregnancy. He joined the Air Force when she was 12.

SALLY: I missed him a lot. There were some problems with him away.

MRS. A.: Charles was like the man of the house.

DR. BOEKELHEIDE: So here was a big loss for both of you at the time. How did things go for you, Sally, in school?
[Because the affect is tied to Charles, this next selected focus is on Sally's prepubertal environment.]

SALLY: Things didn't go too well. I just didn't feel like going to school too much.

DR. BOEKELHEIDE: When you look back, do you think that might have had some relationship to Charles's going away?

In the discussion of school, Sally indicated difficulties because of race, having different teachers for each class, and because she had been advanced a grade. One teacher, a friend of her mother's, paid some attention to her, but she wanted all of the attention. She went to a few parties, found a summer job, gave her earnings to her mother. Sally tried living with her father, but had difficulty when step-siblings were jealous of the stepmother's attention toward Sally.

Termination of Interview

DR. BOEKELHEIDE: Have you talked with other people, perhaps with your mother or Mrs. Graham, about what you'll do to keep from having other children now, Sally?

SALLY: I really hadn't thought about it.

MRS. A.: Oh, Sally! You know I've talked about it with you.

[In this exchange, it is clear that Sally could not attend to her mother's past contraception education efforts. Instead, she listened to Dora and modeled after her behavior.]

At the end of the family interview each participant is asked if she has any questions of the interviewer or the audience. Sally is concerned about natural birth and the pain involved; Mrs. A. about exercises for Sally.

DR. BOEKELHEIDE: Any other questions?

MRS. A.: I was just wondering, when she went into labor, what I would do? It's been 16 years since I had a baby.

[Anticipation of separation again reveals the dependency needs of the family.]

DR. BOEKELHEIDE: And who is it you want to have with you when you're in labor, Sally?

SALLY: I'd really like to have my sister Dora with me. My mother would be there, but she gets so nervous.

MRS. A.: I'd like to be in the hospital when she's in labor, but I don't think I could bear to see her. I really worry about her and her exercises.

DR. BOEKELHEIDE: Maybe the Family Practice Center is a place where you can speak about these kinds of questions. We're going to have to stop now. Thank you for coming Mrs. A. and Sally. This has been very helpful for all of us.

Discussion

DR. JAMES GOLDFARB *(Fellow in obstetrics and gynecology, University Hospitals)*: The medical problems of adolescent pregnancy are of smaller magnitude than the psychosocial problems or the problems of preventing first and subsequent pregnancies. Prenatal care is very important, with a higher incidence of pregnancy-induced hypertension, anemia, and cephalopelvic disproportion in the 14- to 16-year age group.[2] After 33 to 34 weeks, the physician should see the pregnant adolescent more often than is needed for an older patient.

Adolescents do not tolerate labor as well as older patients, and may have an increased need for analgesia and anesthesia. A negative outlook on the pregnancy, combined with the absence of a supporting male during the labor, can make them less tolerant of pain during labor.

MR. DAVID GAGNON *(Administrator, Cleveland Regional Perinatal Network)*: Unfortunately, the health, educational, and social service resources in many communities have not faced the problem of adolescent pregnancy in a coherent fashion.[3] Studies have shown that 50 percent of adolescents in the United States are sexually active, that one in ten abortions are in females under age 19, and that the pregnancy rate in the under-16 age group has increased tremendously. If this increase were to continue, it has been predicted that 21 percent of all females currently aged 14 years will have been pregnant by the age of 20.

The Cleveland School System does not document pregnancy as one of the reasons for dropping out of school, but the impact of adolescent pregnancy must be enormous. For example, in a neighboring school district, East Cleveland, about 10 to 12 percent of the 1,600 females in senior high school are getting pregnant each year. Without continued follow-up after delivery, the probability is high that a teenager will have another child within three years.

Through the Cleveland Regional Perinatal Network, we are trying to join the health resources of University Hospitals with educational resources of the East Cleveland School System and with social services in the Cuyahoga County Department of Public Assistance to establish an all-inclusive program. Our goal is to provide early counseling and prenatal care, special education programs, proper nutrition (including participation in the

Women, Infants, and Children Program), infant day care, and medical follow-up of young mothers and infants.

DR. JACK MEDALIE *(Chairman, Department of Family Medicine)*: In the developmental life cycle, it is implied that the individual, by successfully negotiating the developmental tasks of one stage, will face the next stage with a greater degree of success. Here we have a young woman in the stage of conflict between dependence and independence, between self-identity and role confusion, whose use of sex was not part of a continuing intimate relationship. She is pregnant and suddenly thrown into the role of expectant mother without support from the biological father. How does a woman, still trying to sort out her adolescent conflicts, fare as a mother? How well can she jump from adolescence to motherhood without going through a successful maturation period?

The bases of these questions are Erikson's phases of the individual life cycle derived presumably from middle class culture and values.[4] How do these stand up when dealing with the culture of poverty or the lower socioeconomic groups of the cities?[5] In the latter groups, the network of relationships (kin, neighbors, friends) becomes a very important factor. The grandmother, mother-in-law, or other significant female adult often becomes the critical person in the mothering of a baby for the first few years, while the daughter, or biological mother, continues her adolescence without much involvement in the day-to-day mothering.

Carol Stack has said, "when a young girl becomes pregnant, the closest adult female kin of the girl, or the unborn child, is expected to assume partial responsibility for the young child. Usually, rights in such children are shared between the mother and appropriate female kin. If the mother is extremely young, she may "give the child" to someone who wants the child, for example, to the child's father's kin, to a childless couple, or to close friends."[6] Does this allow the adolescent mother to mature so as to be "ready" for the second or subsequent children? We, as family physicians, are in a position to look at this.

Our clinical impression that a teenage mother usually does not raise her first child is disputed by studies from an inner-city area in Chicago. These studies show that 80 percent of the children are being brought up by their biological mothers, 19 percent by kin, and one percent by nonrelated kin.[6] Does this pattern of childrearing occur in our practices too?

What about the biological fathers? Despite the fact that there is not often a male figure present in the household, the majority of fathers (69 percent in the Chicago study) help their children and the children's mothers, providing their children with kinship affiliation. It is our function to see how this type of relationship affects the development of the children.

In summary, kinship networks are important for the pregnant adolescent. Kin will take partial responsibility for the care of the child, allowing the adolescent mother gradually to complete her developmental changes. When the adolescent is psychologically able to be a mother, she assumes more responsibility. Is this inner-city kinship network a phenomenon reacting to the fact that women who are capable physiologically of becoming pregnant are not yet psychologically ready to be mothers? Does this kinship network then permit the developmental tasks of the life cycle to be more successfully negotiated?

DR. BOEKELHEIDE: We have been interviewing a marginal inner-city family with many expectations of upward mobility, but with overwhelming events happening to them. Let's summarize what we have heard in this "focal interview," a type of interview designed to pick up key issues and avoid others, rapidly and deliberately.

Our attention is focused on a pregnancy, usually a normative crisis for any woman. The extent of this crisis varies, depending on its resolution and upon available support systems. I chose to use the limited interview time to focus on learning how Sally and her mother each is responding to the pregnancy. I tried to pick up on hopes, perhaps some fantasies, and thoughts.

I see Sally and her mother as dependent persons, not too atypical, in a familiar constellation that develops within mutually interdependent families. We hear the repetition in this young girl's story of her mother's experiences: both grew up in fatherless homes, with their mothers acting as father and mother, both becoming caretakers for younger siblings. We hear about Sally spending her first three years with godparents, motherless; mothering Dora's children; returning home to mother her own mother, with a wish to be mothered herself; seeking mothering in every possible way.

She is hesitant to tell us about her young man; he is left out of the picture, just like father and grandfather. The one significant father figure, Charles, dropped out of her life at a very important time, menarche. After two years in her father's home, Sally left, unable to compete for attention. It was during this absence of a father figure that older sister Dora had a baby. Like many teenagers who try to replace the lost father, Sally "became curious," sought affection, and became pregnant.[7] From these life events emerges a common theme in teenage pregnancy—the intense need for attention and the attempt to obtain that attention through pseudomature behavior.

In Sally, we hear a regressive resolution for this theme.[8] We know an infant must have strong infant-mother bonding to survive. Sally may have obtained more of that from her godparents than from her biological mother. Such young women become persistently needy. When pregnant she regressed to the "I want my Mommy" stage, was rejected by "sick" and "nervous" Mrs. A., so asked for Dora, a return to the intense search for mothering. A second resolution for this theme of the crisis of pregnancy is a progressive one, as seen in women who use support systems easily, make their own plans, and do some things on their own. A third resolution is to have some external support system that can provide a critical factor to modify the intense need, and thus help both mother and daughter progress. This is where the family physician, the alternative school, and the medical team fit in. They can serve as constant father and mother figures.

Mrs. A. will need support as well. She, too, should have people who can offer more patience and time so that she can have her own time and attention. The pregnancy reawakened sexual as well as dependency conflicts in both Sally and her mother, and these are played out on the stage of the pregnancy. Working out a new alignment, with critical input from physician, social worker, nurse, and labor room personnel, will help toward a progressive resolution of some of these separation and individuation issues in the family.

Summary

In this interdisciplinary evaluation and discussion, teenage pregnancy has been examined from many perspectives. In the developmental life cycle of a young woman, teenage pregnancy is a normative crisis which tests supports from her immediate family and kinship networks. A family physician must provide not only prenatal medical care, but also recognize the need for individual and family counseling, special educational programs, proper nutrition, and community health planning.

Educational goals in residency training which may be accomplished through the use of a grand rounds format similar to that presented include:

1. Fostering a team approach to families;
2. Endorsing a broad overview of the health area with the focus on the individual and family life cycles, and the place of the family in the community;
3. Demonstrating specific techniques, sanctioning certain attitudes, and serving as a role model;
4. Offering the opportunity to develop leadership qualities to the resident or faculty member who organizes the grand rounds; and
5. Encouraging a working relationship with local and hospital consultants, thereby facilitating communication among clinical departments and the community.

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Communications

Bradycardia Associated with Cimetidine

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Cimetidine, a recently marketed histamine H_2-receptor antagonist, is valuable for treating patients with duodenal ulcer, Zollinger-Ellison syndrome, and other conditions associated with excessive gastric acid secretion. Side effects from cimetidine have been infrequent, but mild diarrhea, muscular pain, dizziness, rash, gynecomastia, and acute confusional states in elderly patients have been reported.[1] Since histamine H_2-receptors have been identified in the cardiovascular system, cimetidine may also affect cardiac function.

Case Report

A 78-year-old man was hospitalized with acute upper gastrointestinal (GI) bleeding. His first episode of GI bleeding was in 1932, when duodenal ulcer was diagnosed, and in 1937 he had a gastroenterostomy for ulcer disease. He did well until November 1974, when he developed acute GI bleeding from a marginal ulcer. He was again hospitalized in November 1976 for a bleeding marginal ulcer. He did well with oral antacids until February 15, 1978, when he had three black, tarry stools and complained of mild epigastric pain and slight "fuzziness." His hematocrit was 42, pulse rate was 70 beats per minute, and cimetidine, 300 mg every six hours, was started. The next day he continued to feel lightheaded and was hospitalized. Admission work-up revealed an elderly white man in no acute distress; pulse 55 beats per minute and irregular; blood pressure 116/60 mmHg supine, 120/60 mmHg standing; bowel sounds were hyperactive and stool guaiac positive; gastric aspirate produced guaiac positive "coffee-grounds" material; hematocrit value, 36%, white blood cell count, 7,100/cu mm with normal differential: protime 11 sec patient/12 sec control; chest roentgenogram results were normal; and electrocardiogram showed sinus bradycardia with rare atrial premature beats, first degree heart block, and right bundle branch block. Except for the sinus bradycardia, the electrocardiogram abnormalities had been present for over five years.

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Cimetidine and antacids were continued, but gastrointestinal bleeding persisted. By February 18, his hematocrit value had fallen to 27%, he had orthostatic changes in blood pressure (104/64 mmHg supine, 86/40 mmHg sitting) and heart rate (60 beats/min supine, 72 beats/min sitting), and he was transfused with two units of packed cells. Despite the falling hematocrit and orthostatic blood pressure changes, sinus bradycardia persisted (Figure 1). Electrocardiograms on February 20 and 26 demonstrated persistent sinus bradycardia (heart rates of 43 beats/min and 55 beats/min, respectively), first degree heart block, and right bundle branch block; the PR interval was unchanged from admission, but atrial premature beats were no longer seen. Endoscopy revealed two recurrent marginal ulcers on the pyloric side of the anastomosis. When bleeding continued despite antacid and cimetidine therapy, a gastrojejunostomy and highly selective vagotomy was performed on February 27, and the GI bleeding resolved.

During cimetidine treatment sinus bradycardia persisted, with heart rates less than 50 beats/min on several occasions. The patient tolerated the bradycardia without complaints. When the cimetidine was stopped, normal sinus rhythm returned within 24 hours, and the patient's heart rate varied between 60 and 92 beats/min during the remainder of the hospitalization. Four days after stopping cimetidine, his ECG showed normal sinus rhythm, first degree heart block (PR interval unchanged from admission), and right bundle branch block; there were no atrial premature beats. At a follow-up examination three months later his pulse rate was 68 beats/min and regular (Figure 1).

Discussion

Histamine H_2-receptors have been identified in human cardiac tissue,[2] and H_2-receptor blockade with cimetidine prevents histamine induced in-

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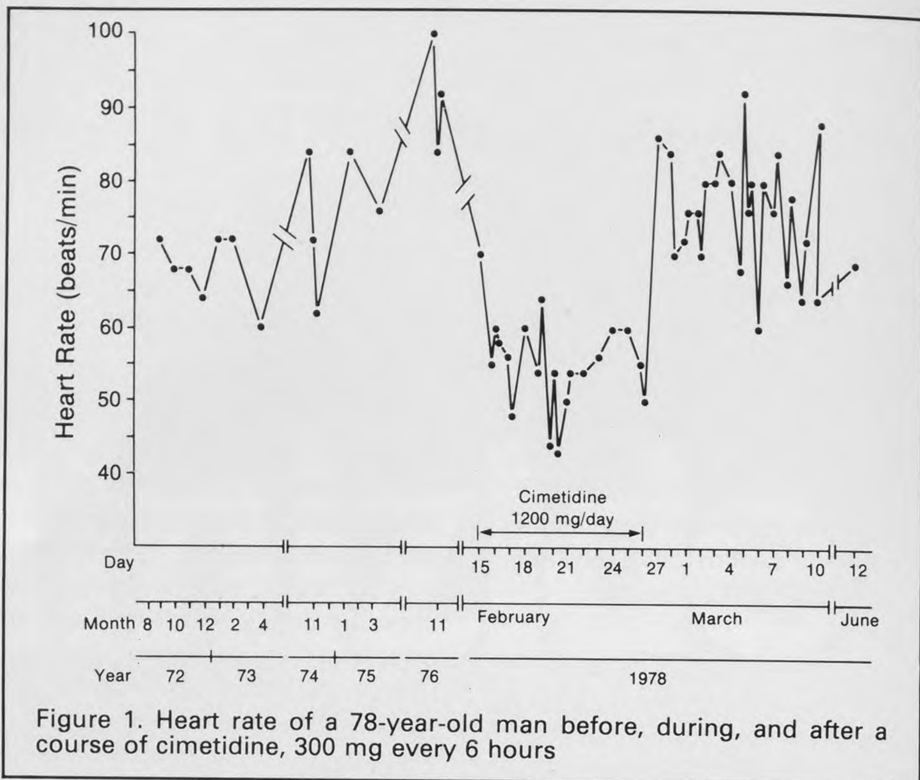

Figure 1. Heart rate of a 78-year-old man before, during, and after a course of cimetidine, 300 mg every 6 hours

creases in heart rate.[3,4] A physiologic role for histamine in the normal control of heart rate has been suggested[5] but has not been established.

Despite the presence of H_2-receptors in the heart, cimetidine has little effect on normal cardiac function. However, a few cases of bradycardia associated with cimetidine therapy have been reported.[6-10] Most of these patients had no previous cardiovascular disease, and bradycardia developed three hours to two weeks after starting cimetidine. The bradycardias in these patients were generally sinus rhythms of 42 to 50 beats/min; however, idioventricular[6] and junctional[9] rhythms have been reported. Normal heart rate returned in less than 24 hours after stopping cimetidine. A 39-year-old man developed dizziness and malaise along with the bradycardia,[7] but the other patients apparently tolerated the bradycardia without complaints.

This patient's bradycardia began within 24 hours of starting cimetidine and resolved within 24 hours after stopping the drug. He tolerated the bradycardia well. Despite the bradycardia his heart rate increased 12 beats/min when his systolic blood pressure fell 18 mmHg in response to sitting up. He had had cardiac conduction abnormalities (first degree heart block, right bundle branch block) for several years, and cimetidine therapy was not associated with any ECG abnormalities other than bradycardia.

Considering the large number of patients who have received cimetidine since its introduction, bradycardia is apparently a rare occurrence. However, patients who might not tolerate bradycardia should be followed carefully when cimetidine is first prescribed.

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