

Migraine Study Guide

Migraine by Oliver Sacks

(c)2015 BookRags, Inc. All rights reserved.



Contents

Migraine Study Guide.....	1
Contents.....	2
Plot Summary.....	3
Chapters One and Two.....	4
Chapters Three through Five.....	7
Chapters Six through Nine.....	9
Chapters Ten through Thirteen.....	12
Chapters Fourteen through Sixteen.....	14
Chapter Seventeen.....	16
Characters.....	17
Objects/Places.....	20
Themes.....	22
Style.....	24
Quotes.....	26
Topics for Discussion.....	28



Plot Summary

The author, Oliver Sacks, is a clinician and physician who has, over the course of his career, observed many patients with various manifestations of migraines. One of the most important aspects of the migraine, according to Sacks, is that the symptoms are so varied that there is a great potential for misdiagnosis.

Sacks identifies "common" and "classic" migraines. While the word "migraine" has become synonymous with "headache," Sacks points out that some patients have no headache at all. Others may have a headache but may lose sight of that pain in the midst of other symptoms. Among the most common symptoms is a tendency toward nausea. This is sometimes the course for relief and Sacks cites one patient who finds relief only after vomiting, so that the man seeks t his relief as soon as possible after the onset of the migraine.

Hallucinations are another part of the more common series of symptoms. Sacks notes that there is a derogatory connotation with the word "hallucination," but that it simply refers to something that seems very real to the sufferer but that isn't there in reality. These sensory hallucinations often take the form of lights that range from "stars" or general flashes of light to complex geometric patterns or even shapes of people or things. These sensory overloads may also refer to smells or sound. In the case of the former, it may be that a patient believes he or she smells some particular odor or that the odor is suddenly overwhelming or obnoxious. The same may be true of sounds.

There are several theories as to the causes of migraines. It seems generally accepted that migraines have a correlation to constricted arteries but Sacks notes this is not a new concept and refers to the "blood letting" of ancient times. Sacks examines the physiological impact of migraines along with potential medial causes.

While there are no miracle cures for migraines, there are sometimes situations that prompt them. These can sometimes be discovered by careful journal entries, such as the case of the woman who had an undiagnosed sugar level issue. Skipping a meal invariably prompted a migraine because of hypoglycemia. Sacks notes that it would be absolutely cruel to deny medication to a patient in the throes of pain but says that he never tells a patient to rely on medicine as the cure-all for recurring migraines. He identifies two potential treatment options with regard to medications: one that treats the mechanics and a second that treats the symptoms. One of the best treatments, according to Sacks, is an increase in caffeine taken in a dim, quiet, soothing setting.



Chapters One and Two

Chapters One and Two Summary and Analysis

The author, Oliver Sacks, quotes German physician du Bois Reymond's writings from 1860 that describe the symptoms of his typical migraines that he says occurs every "three to four weeks." Those symptoms include a feeling of "disorder," pain in the right temple, nausea, and the fact that he can be certain not to have another attack for several weeks. Sacks says that headache and nausea are classic symptoms and that others may vary from one person to the next and even from one attack to the next. The first symptom discussed is the headache itself. Sacks says that the pain is usually violent and relegated to one temple though this is not always the case. Many patients note that the pain is more often on one side and this will be the case throughout their lifetime. The throbbing is because of arterial pulses and pressure on an affected artery may temporarily relieve the pain, at least to some degree, prompting the sufferer to hold some pressure on that side of the head. The pain may be so severe that movement and normal activities are impossible, or may be relatively slight. Movement will likely aggravate the pain, even when the pain is slight. A tension headache may be a secondary factor to the original migraine pain.

The intensity of nausea will vary but is almost always present to some degree. Sometimes, vomiting will alleviate the pain but may also make it more intense. Heavy vomiting and/or diarrhea may cause a serious loss of fluids.

Du Bois Reymond is responsible for having coined the terms "red migraine" and "white migraine" based on the appearance of the person suffering from the attack. The terms are used to describe whether the patient's face goes to white or a solid or mottled red. Those who go to red are usually those who are prone to blush. White migraines are always present in the case of severe nausea.

Other common symptoms include tenderness in the eye or a "shrunken" appearance to the eye; a stuffiness of the nasal passages in about a fourth of all patients; pain or unusual bowel movements occur in about one-tenth of the patients; and an irresistible urge to sleep or at least rest in every case. The author notes that some people refuse to concede normal activities to migraine pain but that all have to fight lethargy to some degree during the event. Weight gain seems common to migraines but are not, according to one researcher, "causally related." A complaint of feeling feverish or flushing is commonly reported during the migraine. Sacks says that at least some of the common symptoms seem to be related to each other as well as to the migraine itself. Another case study is used to demonstrate the possible symptoms and their interaction. This case is a fifty-three-year-old woman who says the onset of her migraines had once been signified by a feeling of "extreme well-being" but had changed over the years so that the woman now describes an "irresistible" urge to yawn and an incredible lethargy. The following day, the symptoms progress to a feeling of chaos followed by the pain of the headache.



Sacks uses a case history of a man who always vomited to end his attacks. According to Sacks, the man developed an ulcer and found himself, post-surgery, unable to vomit. He had a violent sneezing attack and that ended the migraine, prompting him to begin using snuff to precipitate the sneezing, a "remedy" that Sacks says dates back to the Eighteenth Century. Sacks completes the chapter by saying that there's no way to predict every stage of a migraine because a migraine is, by definition, chaotic.

In chapter two, Sacks addresses "Migraine Equivalents." Sacks cautions that headaches may be the primary symptom, the only symptom, or even a secondary symptom of the overall attack. He describes the abdominal migraine as being sometimes diagnosed as "bilious attacks," and tells of a patient who had had classic migraines since childhood who described "severe abdominal pain" rather than a headache. A "precordial migraine" refers to one in which chest pain is a major symptom. Sacks notes that these are rare and that he has seen only two cases. Severe drowsiness is a common symptom of the migraine but may also exist as an "isolated symptom."

Sacks discusses to some degree the potential for misdiagnosis. For example, he says that a woman with severe mood swings in the form of depression that lasted a day or two had been originally diagnosed as being menopausal in nature but was later discovered to be associated with migraines.

—

Sacks presents a list of symptoms with a caution that there's no way that these symptoms will occur in such a tidy list. In fact, particular symptoms may sometimes be lost in the intensity of others. Sacks notes that some patients may notice a series of events during an attack. He also points out that patients who are diligent in their observations during a migraine may list many changes in physiological functions. Sacks says that these range to the extreme and tells of a woman who had very severe headaches on the left side of her head. The woman's hair, according to Sacks, turned white on that side and remained otherwise dark for many years.

Sacks discusses irritability and mood swings at length and seems to discount the possibility that the sufferer is merely reacting to the onset of pain, referring to "organic irritability" and a general intolerance of sound and light. While it seems to be more common - and acceptable - that a person with the onset of a migraine would be irritable, there are cases to the other extreme. A case study of a middle-aged man who is described as being "austere" admits to feeling unusually excited and happy for several hours prior to the onset of the pain and other symptoms. Sacks notes that the man is somewhat embarrassed to describe this feeling of excitement.

Sacks cites a study by another physician in which women suffer "premenstrual migraines" and notes that all menstrual cycles include some sort of physiological disruptions, leading to the apparent conclusion that a migraine at this particular time would not be uncommon.



Sacks uses case studies to make points related to his theories and those of other physicians and researchers. To illustrate the idea that some health issues "transform" into others, Sacks describes a man who had suffered from asthma until he was thirteen years of age. At that point, the asthma stopped and the man began having headaches that began every Sunday afternoon. When Sacks treated him and eliminated the weekly migraines, the man's asthma returned with an attack starting every Sunday afternoon. The man, according to Sacks, said that he preferred the migraines because they were less frightening than the asthma attacks.

Sacks talks about the potential for misdiagnosis and says that there is no other field of medicine with this potential for a mistake. He says that the case studies he's presented up to this point have all the classic signs and symptoms so that diagnosing is a relatively simple matter, but that not all cases are nearly so clear-cut.



Chapters Three through Five

Chapters Three through Five Summary and Analysis

Sacks next addresses the subject of the "aura" of a migraine. The aura traditionally refers to the "sensory illusions" prior to an epileptic seizure. Sacks notes that an aura that is not followed immediately by the headache may be confusing and misinterpreted. There were early accounts of these phenomenon, but would be some time before the aura is connected to migraines. There are five areas of aural symptoms identified though Sacks cautions that the five are not exclusive of each other as combinations of symptoms may very well occur. The categories are sensory hallucinations, changes in the "sensory threshold," changes in the "level of consciousness," changes in mood, and disorders in perception, speech and memory.

Visual sensory hallucinations may be in the form of flashing lights, stars, or geometric figures across the line of vision, or may come in the form of a general lightening of some section or the entire field of vision. As a rule, the hallucinations increase over time as the event advances. There may also be sections of the field of vision that are blank. For example, the person trying to focus on some particular thing may find that some portions of the field are simply missing or are obscured by the hallucinations. Other hallucinations that are part of the overall aura include a sense of vertigo or a feeling that movement has occurred when in fact, there was no movement. There may also be an impression of having heard noises, such as a low growl or rumble.

In some cases, the aura may come to be so serious as to have the appearance of a seizure. Sacks notes that he's never seen a seizure of this type but that he has had them described in a small number of cases.

Sacks describes another kind of visual hallucination in which objects appear to be larger or smaller than actual size. There are additional examples of vision issues, including a mosaic vision which occurs in stages ranging to a very distorted vision. In an extension of this phenomenon, the parts of a person's body may begin to feel overly large or small. Additionally, a person may have difficulty understanding language, hearing only noise. Sacks says that migraine episodes with extremes of these situations are fairly uncommon.

A case study of a man suffering from a "tingling sensation" beginning in his left foot provides insight into the beginning of a typical hallucinatory episode. In another, a 44-year-old man tells of realizing that he was on his veranda in California and asks his wife to bring him a soda, only to realize that the entire scene was a hallucination and that he was really in New York, in the winter, and the woman he spoke to was his secretary.

Sacks says that the differences between migraines and epilepsy make it generally easy to diagnose the two accurately though when complex auras are involved the diagnosis may be less clear cut. In some cases, the person who presents with the symptoms of



the migraine aura may then advance to the symptoms of a classic migraine, only slightly different from the common migraine. One of the main differences in classic and common migraines is the after-effects which are usually short-lived with a classic migraine. The aura may or may not continue after the aura has given way to pain of a headache.

Chapter four describes several versions of the migraine, including the cluster headache. Some wake the patient in the middle of the night while others may have onset of pain shortly after waking. Pseudo-migraines and ophthalmoplegic migraines are also discussed. Sacks says that some physicians and researchers believe there to be some possibility of permanent damage from migraines in the form of neurological or vascular problems.

Chapter five discusses "The Structure of Migraine" and calls the central symptoms of the migraine "disorders of arousal." Sacks notes that these might be overlooked by both the patient and physician simply by being overshadowed by other symptoms. Sacks cites a researcher who believes that there is a "mysterious relation" between migraines and the various symptoms and even between migraines and other diseases such as epilepsy. The point, according to this researcher, is that these relationships can be seen but not explained.

—

Sacks points out that the word "hallucination" has a derogatory connotation and that it requires some additional discussion. In this case, the word is used to describe things that appear to be reality but aren't. In some cases, the patient may feel certain that the hallucinations were real. Sacks likens this to a dream. He describes a situation in which a patient comes to believe that there are small Indians in his room during one of the hallucinatory episodes, but that he is not afraid because the situation has nothing to do with him.

Sacks talks at some length about moods. He says that some people, in the throes of a migraine, may feel a distorted sense of familiarity or strangeness. For example, that they know a person or situation when they actually don't, or that they know nothing about a particular person or situation with which they are ultimately familiar.



Chapters Six through Nine

Chapters Six through Nine Summary and Analysis

Sacks notes that there are "predispositions" toward many diseases and the migraines are no exception. There is, as is the case with many illnesses, a tendency toward family connections. For example, a person who has migraines might have a child who is also prone to migraines. Sacks says there are some problems with this theory, mainly in the subjects used for the study on which the figures are based. One of these is that environment may play a key role in instances of migraines. He says the only way to thoroughly test these theories is to use children of parents who suffer migraines but who are raised by foster parents who do not have migraines.

An important point made by Sacks indicates that there is a tendency to "romanticize" migraine sufferers. Some researchers, according to Sacks, believe that suffering migraines tends to make a person almost immune to other maladies and diseases. Another discounts that claim, indicating that migraine sufferers tend to be especially prone to other health issues ranging from allergies to motion sickness. Another believes there to be "a certain delicacy or grace" present in those who suffer migraines. Sacks notes that there are some common tendencies among those with chronic migraines, including a predisposition toward motion sickness and "cyclic vomiting" as a youngster though having motion sickness and vomiting as a child doesn't necessarily mean that a child will have migraines as an adult.

In one case, a woman's migraines occur at monthly intervals and there seems to be no real reason for them until Sacks discovers that she'd been recently put on hormone treatments. Sacks notes that without the treatments, the woman's migraines subside with no further recurrence.

Another study has examined the potential for a relationship between migraines and epilepsy with a conclusion that there is a correlation, on both a "constitutional" and "genetic" basis. Sacks notes that the general rule is for migraines to be present in early life and to taper off as the years pass though there are exceptions to the rule.

In chapter seven, Sacks examines "Periodic and Paroxysmal Migraines." He notes that many patients with classical migraines experience the onset of an attack at fairly regular periods though the times vary from one patient to another. In most cases, there is no sign of a migraine in the period between events though a new attack may be early if the conditions prompt it. Typically, a person approaching the time of an attack becomes irritable or to show other early signs. Sacks says this kind of migraine tends to present itself as a unit, from the earliest signs to the aftereffects. Sacks asks patients to keep detailed calendars and notes that these sometimes present clues as to the causes of the migraines but more often do not. To further confuse the question of cause, Sacks says that the things that sometimes set off an attack may, at other times, be inconsequential.



In chapter eight, the "Circumstantial Migraine," is explained. These are situations that prompt migraines. Lights, noises, smells, activities, pain, drugs, or heightened emotions are among the potential causes. Sacks believes there to be some tendency to exaggerate smells during a migraine attack, which may mean that some patients equate the smell with the onset of the migraine rather than the heightened sense of smell - or even hallucinatory odors - being a side effect of the migraine. Poor or unusual weather conditions may be blamed for migraines though Sacks indicates that these may sometimes be simply a part of a greater situation that prompts migraines. "Violent" emotions, exercise and excitement is also sometimes linked to migraines with exercise more common in younger patients and the attack beginning after the exercise rather than during it.

Sacks indicates that a woman who kept a detailed diary learned that skipping breakfast tended to prompt a migraine and that it was then revealed that she was actually hypoglycemic. Other situations that may prompt migraines include fever, hot weather, being overly tired, and being in a situation of extreme "let down." These are true in the case of those predisposed to migraines and what sets off an event for one person may not impact another at all.

While many of the factors discussed may be expected and seem reasonable, Sacks says there are a great number of people who are surprised to find that they may wake with a migraine. In fact, there seems to be a connection between migraines and sleep. There are several types, including those who wake in the middle of their sleep time, those who wake at dawn, and those who have dreams or nightmares. Another outside stimulus may be visual. These may be flickering lights such as a television screen or may be prompted by patterns such as striped wallpaper.

Sacks says there are other circumstantial migraines but those remaining may be more difficult to neatly define. Food may be included in the descriptions of the onset of migraines by some because of the nausea and/or bowel disorders that they attribute to having eaten something that didn't agree with them. Monosodiumglutamate - MSGs - are used extensively in Chinese foods and may be attributed by some as having prompted a migraine. Others simply claim that they don't feel well. Some sufferers may identify other specific foods, including cheese, as the culprit that prompts a headache. In the case of constipation, Sacks poses the question that the constipation may prompt the migraine or may be part of the unit of the overall event.

On the subject of menstruation and migraines, Sacks says that there seems to be a connection though the cause and effect are unclear. As to allergies, again there seems to be a connection though some people ascribe to the theory that the migraine is in itself an allergic reaction. He concludes the chapter by discussing the question whether a single symptom or series of symptoms could actually drive the entire episode. Sacks believes this could be the case.

In chapter nine, Sacks discusses the "Situational Migraine." He notes that there are some patients that obviously suffer from periodical or causal attacks but that the larger group will defy easy classification. Further, Sacks notes that he has had the opportunity



to spend time with many of his patients - two times each month over a long period - which gives him the opportunity to find important factors that may not have been revealed in a single appointment or even a series of one or two. Sacks then presents a series of case studies, including the nun who had been restricted from her normal social tendencies, prompting depression that likely prompts migraines. In another case, the woman's home situation is thoroughly problematic with the family heavily indebted, the husband impotent and the son a delinquent. The combination of stresses seem to prompt the migraines.

Part II opens with an introduction in which Sacks points out that most people believe their migraines to be "spontaneous" and without any direct cause. This almost invariably leads to a sense of fatalism. Sacks says there are always causes. Sacks says there are many questions that have apparent answers only to have exceptions to the rules and counterclaims as equally acceptable answers. One of the variables that Sacks says cannot be accounted for is the question of whether the migraine is a single health issue in and of itself without regard to other health problems. The fact that migraine sufferers come from every aspect of society with many genetic and social backgrounds makes it impossible to put together a fully reliable study group with regard to migraines. Added to that is the problem with actually analyzing the data - the symptoms that may or may not be related and the causes and effects of the various aspects of the migraine as well as identifying all aspects of any single event. Finally, Sacks points out that after environmental concerns have been eliminated as problematic for the migraines, family histories must be considered. The problem here is that information provided may or may not be reliable.

Sacks notes that there are many factors that play into the question of whether a situation will prompt a migraine. For example, the level of noise may be less important than its duration or even the person's desire to escape the situation. This seems to indicate that the person's emotional state may play as important a role as the noise itself. This can also be said of light, pain and other situations that prompt a migraine.

Sacks points out that the diagnoses of various physicians may be difficult to compare because of differences in terminology and interpretations. This indicates that the diagnosis of migraines is highly subjective and depends on the information provided by the sufferer as well as the physician's own observations.



Chapters Ten through Thirteen

Chapters Ten through Thirteen Summary and Analysis

From medieval times there have been theories about contractions of arteries and their relationships to migraines, hence the "blood-letting" of those ancient times. At least one researcher equates the migraine with a release, similar to that of a sneeze, as a reaction to a specific situation. There are several theories as to the causes of migraines and Sacks notes that these occasionally become accepted as fact. These theories include that the intensity of the pain is directly proportional to the "dilation of extracranial arteries" and that the intensity could be reduced by "manual compression." Another is that there is a chemical explanation though Sacks discounts the possibility that histamines are a part of the equation. The possibility of an electrical correlation is also discounted by Sacks, largely due to studies that fail to produce indications of a relationship. Sacks indicates that all these studies are interesting.

In chapter eleven, Sacks investigates the problems created by the myriad of symptoms that accompany a migraine. Sacks notes that there are also "hybrid and transitional attacks" that further complicate the potential for accurate and consistent diagnoses. In chapter twelve, Sacks moves on to the "Biological Approaches to Migraine." Though Sacks doesn't say that migraines are present only in humans, he does say that an animal unable to express pain is of no use in terms of studying migraines. Therefore, he proposes that the "behavior" of the person suffering from migraines becomes an important part in the study of migraines. He then describes passive and active reactions to situations in the animal world. For example the "fight or flight" mentality as opposed to the adoption of a submissive posture. Sacks says that the need for these reactions is more evident in the animal world because of the need for biological survival. Though it is less overt in humans, the response is present. In concluding this topic, Sacks answers the original question of whether animals suffer migraines with the idea that there's no reason to believe that animals can't suffer migraines but that the reaction to a migraine is uniquely human.

Chapter twelve addresses "Psychological Approaches to Migraine." Sacks proposes the idea that a person who is "accident prone" may actually be self-destructive or may have a desire toward self-punishment. Regardless of the reason, this connection must be considered. Likewise, Sacks points out that migraines may have some specific "purpose" in the life of the sufferer, though he cautions that this is the exception rather than the rule. One possibility on this front is the "aggressive" migraine in which the patient is highly emotional and tends toward intense - and often repressed - rage. The hostility, turned in on oneself, creates the situation for a migraine. Further examining this possibility, Sacks says that a "rage migraine" may in fact be nothing more than a "stereotypical reaction to rage" in some patients.



Sacks points out that there are increasing desires to answer questions and that physicians and researchers sometimes extrapolate too much from their data in order to find these answers. Sacks says that these leaps in the data analysis are unreasonable and untrue.

Sacks goes into great detail in chapter eleven of medical aspects of the migraine. There is extensive use of medical terminology and theory and some readers may find this section of the book incomprehensible because of the use of medical terminology.

Sacks uses the ideas presented up to this point to say that migraines are both "innate" and "acquired." Sacks goes on to point out that a migraine is never "typical" in that all are the same or even greatly similar. Instead, he compares it with the way a person walks. The walking itself is nothing unusual but a particular walk may be identified with a particular person because of the unique style and movement of that walk. The same holds true of migraines, Sacks says. He points out that migraines may very well take on the particular aspects of the sufferer though one can't be certain what prompts the unit as a whole.



Chapters Fourteen through Sixteen

Chapters Fourteen through Sixteen Summary and Analysis

Sacks describes "General Measures in the Management of Migraines." One option that is typically brought up early in the treatment process is the use of drugs. Sacks says that to deny a person in the throes of migraine pain the opportunity to use medications would be cruel. He goes on to say that he makes it clear from the beginning that this is not to be the sole, long-term answer. Sacks does, however, admit that some patients insist only on drugs and that he treats these patients in "the only way they allow." One piece of advice is to get sufficient exercise and rest and to take a holiday. This, according to Sacks, has been the advice "since the time of Hippocrates." Those who work overly hard may be told to lighten up on the ambition though those usually don't follow that advice. Adjusting television sets to lessen flickering lights, careful monitoring of food intake, and other risk management are sometimes necessary.

Sacks notes that there are "few generalizations" that have any value in ordering treatment for migraine sufferers and that some physicians may make hasty decisions for treatment based on "impertinent, irrelevant, irresponsible, ill-timed and frequently incorrect" interpretations. In these cases, the patient may seek out a new physician. The initial interview may be somewhat limited but later interview should go on to delve more deeply into a patient's life as these may provide important information as to causes of the migraines. The frequency with which a patient should be seen depends mainly on the tendency toward migraines. Sacks indicates that a person with fewer than ten events per year is in need of less invasive interviews and may be seen after the initial diagnosis just often enough to ensure that the patient is maintaining instructions.

In chapter fifteen, "Specific Measures During and Between Attacks," Sacks points out that many patients and doctors are looking for a miracle drug to address migraines. There are no "wonder drugs" but are some drug therapies available. Sacks divides these into three categories: those aimed at the mechanism of the migraine, those aimed at symptoms of the migraine, and "auxiliary drugs" for sleep or relaxation. One of the drugs is "ergotamine tartrate" with large doses early in the attack. Sacks says that caffeine should never be overlooked as an effective drug. He says that he has also prescribed belladonna and amphetamines. Symptomatic drugs include analgesics and Sacks notes that rectal absorption may be the only option when severe nausea exists. In the case of menstrual migraines, diuretics may be effective.

There are two major kinds of medical deterrents related to migraines. One of those addresses the mechanics of the malady while the other is aimed at "emotional reactivity where this is considered to be a major determinant of frequent migraines." Sacks says it's important to realize that both are important in the proper context. Sacks goes on to list several other drugs for the treatment of migraines and notes that there are some side effects. There are some drugs that are used for migraines that have no real



chemical basis for working but that are effective. Sacks notes that migraines are very sensitive to suggestion and that some patients respond to placebos. Treatment for allergies and hormones are also discussed. Sacks says that some well-meaning surgeons have tried surgeries though these may be "grossly fraudulent or mutilating."

In chapter sixteen, "Recent Advances in the Treatment of Migraine," Sacks talks about experiments in the field. Despite these trials, Sacks says there are no magic cures and never will be. Instead, effective drug therapy depends on trial and error. Sacks points out that patients who have constant migraines that interrupt life may have to "learn" how to live without the inconvenience and pain.

—

An important part of treatment, for most patients, is to get the rest the body demands during an event. This is a natural tendency though many patients may try to work through the migraine attack. Sacks says that some researchers believe that taking time for rest may be as therapeutic as most drugs. While there are many manifestations of the migraine, the only invariable aspect of treatment is that the physician must listen to the patient. Sacks describes a patient who has sudden onsets of a migraine with vicious symptoms that include pain and vomiting. If he allows the migraine to run its normal course, the event lasts about three hours followed by a feeling of wonderful freshness described almost as a "rebirth." However, if he fights off the severe attack, he endures a lesser degree of the event for several days. At the point where the patient fully realizes the options, he chooses to undergo the brief bout of serious pain.

Interestingly, Sacks says that the "best migraine clinic" he's ever seen is one in which the patient is given tea and aspirin and then allowed to lie down in a darkened room. The people who undergo this treatment are responsive, Sacks says, more so than most other treatments.

Chapter Seventeen

Chapter Seventeen Summary and Analysis

The final chapter, "Migraine Aura and Hallucinatory Constants," is written with Ralph M. Siegel, Ph.D. The fact that visual hallucinations are so common makes their presence fascinating to researchers. Those who suffer migraines tend to try to describe the visualizations. In some cases, the patient has resorted to drawing the visions present at the time of the event. These range from random geometric shapes to "representations" of people or places. These visual phenomena are divided into three categories. The first is, quite literally, "seeing stars." This is identified as the "crude" among the possible visualizations in that they are not nearly as sophisticated as some other types. The second is the "expanding spectrum" and the third is geometric patterns. In some cases, these three stages all occur in a single event, sometimes in that progressive order with the smaller number of patients describing the third. One researcher describes lattice work patterns during these events.

Sacks concludes the book by examining the tendency for the universe to take on specific - if sometimes undetected - patterns. He presents ideas of chaos versus organization and says that the migraine is "enthraling" in that there is a "laboratory" inside the human head.

It's noted that there seems to be a relation between descriptions of migraine visual hallucinations and those described after consumption of mescal or cannabis. It's also noted that the simplest of hallucinations can be prompted clinically but that these experiments can not produce the more complex hallucinations.



Characters

Oliver Sacks

Author of the book and described as "one of the great clinical writers" of the 1900s, Oliver Sacks is a doctor who oversees many patients suffering from one or many symptoms of migraines. Sacks notes several important factors about migraines, including the fact that there are no set list of symptoms to identify a migraine and that even an individual who suffers from migraines may find the symptoms change from one to the next.

Sacks notes that he initially thought migraines were a particular kind of headache and that it took many clinical hours to discover that there is some "sense" to migraines. While the book includes some very basic information about migraines, Sacks also goes into medical detail about migraines. Sacks includes some details that will be of interest - and likely of use - to the laymen caring for a migraine sufferer or to the patient, but also presents some information on a level that will be of little use to anyone without medical training.

The Typical Migraine Patient

While Sacks says there are no typical migraine events because no two migraines are the same - even when occurring to the same patient - there are some commonalities seen in the typical migraine sufferer. Though not every migraine event includes a headache, this is one of the most common symptoms. In addition, the typical migraine sufferer may describe a general sense of chaos or irritability prior to the onset of the event. Likewise, a tendency toward hallucinations is typical of many migraines. These may come in the form of lights that seem real but are not actually present in the patient's line of vision. The hallucinations of a typical patient may also include sounds and smells. In addition, there may be a hyper-sensitivity to lights, smells or sounds. Sacks says that the typical patient may not describe all their symptoms because they either overlook specific symptoms or fail to identify them.

Du Bois Reymond

A German physician who is quoted in the book as having described symptoms of a migraine in his diary in 1860. In his words, there was nausea, tenderness to the scalp, and "a general feeling of disorder." Reymond writes that his migraines occur every few weeks and affect the right side of his head.



Case 20

A woman who, at fifty-three, has a long history of migraines. The woman describes a incredible lethargy on the night before a migraine occurs and finds this level of tiredness, accompanied by "irresistible" urges to yawn, very unsettling. The next day she is beset by a general feeling of unrest which is also described by other patients prior to the onset of the headache itself.

Case 63

A man who is middle-aged and who is described as being completely "austere," but who experiences a sense of excitement and happiness prior to the onset of other symptoms.

Case 76

A nun who is described in chapter nine, she is a sufferer of migraines and initially indicates that there are no causes in her life for the attacks. She spends most of her time in a convent and Sacks, after extensive time with the woman, discovers that this is going against her naturally overt social nature, prompting spells of depression.

Case 80

Described in chapter nine, she is a forty-two-year-old woman who claims to have no problems in life but who Sacks later discovers to be a victim of numerous stresses. Her family is in debt, her husband impotent and her son a delinquent. Sacks uses her as an example of the need to delve deeply into a patient's life to discover potential causes for the migraines.

Case 54

A woman who has several migraines each month - three to five as a rule - without being able to connect the events to any cause. When she is ordered to keep a detailed diary of the events, it's discovered that missing a meal is the culprit and that she's hypoglycemic.

Case 15

The 62-year-old woman who develops migraines that occur at regular monthly intervals with no apparent causes. Sacks, after seeing the woman for several interviews, comes to realize that she's recently been put on hormone treatments and tells her to stop those, effectively ending the recurrence of migraines.

Ralph M. Siegel, Ph.D

The doctor who corroborates with Sacks for the final chapter of the book. It's not noted what aspects of the chapter are the work of Siegel and what are from Sacks.



Objects/Places

Aura

The sensory symptoms which precede a migraine similar to that which precedes an epileptic attack.

Nausea

Arguably the most common symptom of a migraine other than the headache pain.

Lethargy

An extreme tiredness and lack of interest that some patients say accompany their migraines.

Red Migraine

The term used to describe the situation in which a patient's face turns red, either solid or mottled, in connection with a migraine.

White Migraine

The term used to describe the situation in which a patient's face turns white in connection with a migraine.

Premenstrual Migraines

The tendency to have migraines in connection with the menstrual cycle.

Hallucinations

Visions of shapes, lights or other figures that do not actually exist other than in the vision field of the sufferer.

Epilepsy

A disease that some physicians and researchers say may be related to migraines.



Circumstantial Migraine

A migraine that has its basis in a set series of circumstances.

Caffeine

A stimulant that is believed to have some effect on migraines.



Themes

Migraines Manifest in Many Forms

The author notes that there are many opportunities for misdiagnosis of migraines simply because the symptoms are so varied and the causes may be difficult to discern. Headache pain and nausea are among the more common symptoms of migraines though are not by any means the end-all determination for a diagnosis. Sacks points out that there are some cases in which even the headache is not presents. In some cases, an extreme sense of well-being may occur hours or even days prior to the actual event. In other cases, patients describe a feeling of chaos or unrest. Still others say they are overly tired with an irresistible desire to sleep prior to the actual onset of the migraine. Sacks cites one case study in which the man, generally taciturn in nature, describes a sense of something akin to euphoria or excitement prior to the migraine. These are only some of the examples of how migraines begin and there are many symptoms that may occur as a symptom, such as fever, a shrunken appearance or an increased sensitivity to light, sound or odor.

There Is No Cure

Sacks makes it clear that clinic trials and physician observations are among the ways migraines are being studied and that there is an ever-increasing awareness of the mechanics of the migraine, but that there is no miracle drug that can cure or even prevent migraines. Sacks tells his patients from the beginning that he does not recommend a simple regiment of medicine for addressing symptoms, but that he does not believe in denying the patient in the throes of a migraine medicinal relief. Sacks identifies several medicines that address some level of the migraine but warns that none are the end-all answer. He includes caffeine in this list. Sacks notes that one of the most effective treatment options he's observed is a clinic that provided tea and a quiet, soothing atmosphere for the duration of recovery. Sacks also notes that there are sometimes ways to avoid the onset of the migraine that a patient can accomplish on his own and that some - such as the man who finds relief immediately after vomiting - find some answers on their own.

The Need for Intensive Interviews

Sacks says that the most common cause of misdiagnosis with regard to migraines comes from the lack of information, sometimes on the part of a reticent patient but sometimes because the patient may not recognize information important to the physician. Toward that end, Sacks recommends a series of interviews over the course of months in the case of any patient that suffers severe migraines on an on-going basis. He gives several examples of this situation, including the woman who claimed that there were no significant problems in her life. It's not until Sacks further examines the situation

that he discovers that the woman's life is actually causing her a great deal of stress and that this stress is the basis of her migraines. Another example is a nun who is cloistered for most of the year, a situation that goes against her nature because she is naturally outgoing. Sacks says that those who are overworked may also tend to downplay stress in their lives and that they probably won't heed advice to change lifestyles.

Style

Perspective

The story is written from the perspective of the author, Oliver Sacks. Sacks is a clinician and physician who is interested in migraines and who has some definite ideas about the malady. The book has no story line or plot, meaning there is not the traditional information about perspectives. Sacks does, however, present data he has personally recorded along with information from others in the field. There are some instances in which Sacks records first person accounts. For example, he notes that he had observed a very effective migraine clinic in action and gives this information with a first-person view. However, the majority of the book is written with an eye toward objectivity and the word "I" appears only occasionally. It is noteworthy that Sacks presents a number of views and observations made by other doctors. As a rule, these appear as a means of either providing a counterpoint for Sacks' own views or to support his views.

Tone

The book is very clinical in both information and tone. Sacks presents facts as they appear to him. It's important to note that this is not a book designed to aid the migraine patient in feeling hopeful. Rather the book is designed strictly as an informational source with the reader left to use the information as he or she sees fit. There are great details given with regard to physiological and psychological impacts of migraines. While Sacks doesn't offer a base reason for all migraines, he does describe an array of migraines by type and presents details gleaned from his observation of many migraine patients. This information is often presented as case studies. There are literally dozens of these included in the book and only a fraction are presented in this summary. The case studies are identified only by number and details of the case, including age, gender and other basic information about the patient. Names are omitted.

Structure

The book is divided into five sections or "parts." Each is numbered with a Roman Numeral and named. The parts are "The Experience of a Migraine," "The Occurrence of a Migraine," "The Basis of a Migraine," "Therapeutic Approaches to Migraine," and "Migraine as a Universal." Each part is further divided into chapters, varying in number and length. Part I has five chapters while Part V has only one. Chapters are both numbered and named. Chapter one, for example, is titled "Common Migraine." Other titles include "Migraine Equivalents," "Migraine Aura and Classical Migraine," "The Predisposition to Migraine," "Periodic and Paroxysmal Migraines," and "General Measures in Migraine Management." The chapters are of varying lengths ranging from only six pages in chapter twelve to more than twenty. There is no evident "average" length. Chapters are further divided into sections. Chapter one is divided into more than



a dozen and this is typical though there are a few chapters with fewer sections. Chapter six, for example, has seven. Most chapters begin with an introduction section and end with a conclusion section. These serve the purpose of providing background information and wrapping up the information.

There are some additional sections of the book. These include an introduction used in the original publication and a new introduction used in the current printing. There are photos of drawings of various descriptions of migraine hallucinations. There are also ancient remedies dating to 1672 (though it's noted that these were tried "in vain), glossaries of terms and case histories and a bibliography.

Quotes

"Nausea is invariable in the course of a common migraine, whether it is trifling and intermittent, or continuous and overwhelming." Chapter One, Page 16

"Very characteristic of this state is an exaggeration, and often a perversion of the sense of smell; delicate perfumes appear to stink, and may elicit an overwhelming reaction of nausea." Chapter One, Page 25

"Very characteristic of this state is an exaggeration, and often a perversion of the sense of smell; delicate perfumes appear to stink, and may elicit an overwhelming reaction of nausea." Chapter One, Page 25

"It seems probable that all migraine auras commence with some degree of arousal, whether this is manifested as multiform positive hallucinations, or states of anaesthetic excitement." Chapter Three, Page 67

"Migraines are often described, and misunderstood, because they are described in terms of a single symptom. Thus, a common migraine may be equated with a headache and a migraine aura with a scotoma: such descriptions are ludicrously inadequate in a clinical sense, and permit the formulation of equally absurd physiological theories." Chapter Three, Page 87

"The headache of a classical migraine characteristically comes on as the aura draws to a close, and rapidly attains climactic intensity." Chapter Three, Page 93

"The sequence of a full-fledged migraine (i.e. one which is not prematurely terminated, and of which the inaugural stages are recognized) has essentially two stages: a state of excitation or arousal, followed by a protracted stage of inhibition or 'derousal.'" Chapter Five, Page 113

"There are many patients who insist that glaring light and blaring noise are liable to give them a migraine. Emphasis is usually laid upon the intensity and duration of the provocative circumstance, upon its unbearability, upon the annoyance which precedes the attack, and the explicit wish to terminate the experience and find quiet and modest illumination." Chapter Eight, page 141

"So many exciting factors, yet the effect is the same: in every case the nervous system responds with a migraine. Therefore, the migraine is implicit in the cerebral repertoire." Chapter Ten, Page 181

"It would be cruel and pointless to deny medication to an acutely-suffering patient, but it is another matter altogether to tout any form of drug therapy as the sole treatment of severe, frequently-recurring migraines." Chapter Fourteen, Page 230



"Caffeine is a stimulant, a constrictor of cranial arteries and a diuretic. It is simple, non-toxic, and delightful to take, and should never be neglected in attacks of migraine which permit taking medication by mouth." Chapter Fifteen, Page 241

"But we do not need to go far afield for examples - to the aggregation of slime-fungi or the motions of Pluto - we have a natural laboratory, a microcosm, in our own heads. It is in this sense, finally, that migraine is enthralling; for it shows us, in the form of hallucinatory display, not only an elemental activity of the cerebral cortex, but an entire self-organizing system, a universal behavior, at work." Chapter Seventeen, Page 297



Topics for Discussion

Give three examples of what might be a "typical" migraine. What does Sacks say about the series of events leading to a migraine in different people? What about the series of events leading to a migraine in an individual?

What is an aura? How does this manifest itself in a migraine? What is the other disease with which an aura is associated, according to Sacks? What does this seem to indicate about the two diseases? What does Sacks say about this assumption?

List at least five potential symptoms associated with a migraine. Which are considered most common? What is it about the interactions of these that make diagnosis sometimes difficult?

What does Sacks say about the use of drugs as a means of controlling migraines and their symptoms? Do you agree? Support your answer. What does Sacks say is the most effective migraine control he's witnessed in a migraine clinic?

What is a "red migraine" and a "white migraine?" Who coined the phrase? Is there some indication of what kind of person might be more likely to suffer a red migraine? What are some other types of migraine that might impact a particular person or group of people?

What are circumstantial migraines? What are some of the environmental issues that could prompt the onset of these migraines?

Sacks says there's a great potential for misdiagnosis when related to migraines. Why is this true?