Denver Clinic Medical Centers, P.C.

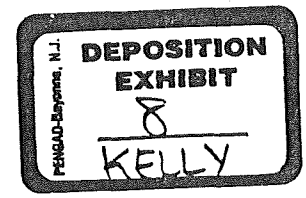
Celebrating 30 years...1956-1986

Corporate Offices • 701 East Colfax Avenue
Denver, Colorado 80203 • (303) 831-7171

March 3, 1987

Thomas W. Henderson, Esquire
Henderson & Goldberg, P.C.
1030 Fifth Avenue
Pittsburgh, PA 15219

TVA



Dear Mr. Henderson:

Thank you for referring Howard Curtis to me for evaluation.

At your request I interviewed and examined him on February 26, 1987.

Based upon my examination I find that Mr. Curtis had a long history of exposure to polychlorinated biphenyls in the course of his work as a transformer electrician. Other than his PCB exposures, there are no significant occupational exposures which would account for the occurrence of the low grade liver abnormalities, chloracne and neurological changes present in Mr. Curtis.

In addition to his chloracne, neurological changes, and liver abnormalities Mr. Curtis has evidence of a progressive muscular disorder, best characterized as a proximal myopathy. The precise nature of this myopathy has not yet been defined. However, it does not appear to be characteristic of any muscular dystrophy which is widely recognized. There is a strong likelihood that this disorder represents a toxic phenomenon in muscle secondary to PCB exposure.

In addition to Mr. Curtis's peripheral neuropathy, there is evidence of a decrement in cognitive function, and in emotional status. He has findings of neurasthenic syndrome. Although there is a history of alcohol use which may have been excessive on some occasions, none of the current clinical findings are consistent with alcohol induced disorder.

In my opinion, PCBs either caused or contributed to his skin disease, liver disease, neurological disease and myopathy. PCBs may also have contributed to Mr. Curtis's pulmonary complaints. It is more probable than not that phosgene, and hydrochloric acid as well as other pulmonary irritants were produced by the breakdown of PCBs at the very high temperatures which were generated in the ovens in which transformers were baked, and that these substances damaged his lungs.

this is nonsense - there is evidence about liver disease

Central: 701 E. Colfax, Denver 80203 • 831-7171
East: 9450 E. Mississippi, Denver 80231 • 751-1241
West: Denver West Office Park, Bldg. 52, Golden 80401 • 279-7525
Littleton: 1900 W. Littleton Blvd., Littleton 80120 • 797-6700
North: 84th & Zuni, Suite 225, Denver 80221 • 429-1529
Aurora: 15101 E. Iliff, Suite 140, Aurora 80014 • 696-7525
Tiffany Plaza: 7400 East Hampden, Denver 80231 • 770-3200

See reverse for professional staff listing

In my opinon, Mr. Curtis may require liver biopsy if the low grade liver abnormalities persist.

If you have any questions, please do not hesitate to call me.

Sincerely,

Daniel T. Teitelbaum, M.D

/ls

MEDICAL DICTATION

RE: Howard Curtis

BY: Dr. Daniel Teitelbaum

DATE: March 3, 1987

Chief complaint:

He stated that at the present time his chief complaints are an eruption on his legs which appears to be chloracne and a dystrophic disease of muscle which began quite recently. In addition he has been hypertensive for a number of years.

Present Illness:

The patient indicated that he had begun his career as an electrical lineman lineman. In his early days he worked for the city of Florence, Alabama. He remained a lineman until 1959. Then he went to the TVA. During the time he was at the TVA he did primarily transformer work. This work required considerable direct hand and arm skin contact with PCB's. In addition, on many occasions, he had a need to move into the body of the transformer to check various electrical conditions and connections within the transformer. He states that the transformers on which he worked were on occasions as large as 15 x 24 x 20 feet. He had to handle enormous volumes of PCB oil which were used to fill these transformers. His hands, his clothing, his shoes, and his entire body were frequently soaked with transformer oil. Approximately 15 years prior to this examination, [1970], he noted a rash on his hips. He states that this rash looked and felt like ants on his hips. He was told that this was "Nickelitis" by a local physician. He saw several other dermatologists and eventually he was told that the diagnosis was indeed, chloracne. In the mid to late 1970's he noted the development of a weakness in his hips and shoulders. This gradually progressed so that he fell at work in March of 1986. Following this fall, he was examined in detail. A diagnosis of adult onset muscular dystrophy was made. The precise type has not been indicated. The dystrophy has progressed to the point where during this examination he was virtually unable to get out of a chair without assistance. He uses a cane to walk and is in considerable distress much of the time. Recently he has noted some weakness of his hands. In March of 1986, his fingers began to trouble him. He noted that he is unable to close his left hand completely and his right hand is now becoming difficult to close. It is painful. In addition, he has difficulty opposing his thumbs.

The patient stated that in the early days of his work as a lineman, he was exposed both to creasote, and other wood treatment compounds probably including pentachlorophenol. In addition, he was exposed to arsenical wood preservatives.

HARTOLDMON0021643

The PCB material which was placed in the rectifiers to which he was exposed was, according to his recent information, 900,000 parts per million ascarel. He frequently worked in this material up to his elbows. Most recently the materials he was working with were 499 parts per million or less PCBs.

At the present time he states that he has developed a problem with explosive diarrhea which occurs a half hour after he eats any food if it is other than the simpliest kind of food.

Family history:

His mother died of a heart attack at age 74 and she had diabetes; his father died at age 75 and had hypertension. He has 4 brothers all of whom are alive and well.

Social history:

Married, lives with his wife, two children who are alive and well; four grandchildren who are alive and well. He is no longer able to participate in active sports, and is concerned that he may not be able to fish any longer, because of an inability to grip his rod. He has a past history of participation in semi-professional baseball. He smoked cigarettes for 10 years, approximately 1/2 pack a day; more recently has smoked cigars. He stopped smoking cigars at age 58. He had smoked approximate 6 per day. he has not smoked since age 58 which was 1980. The patient drank approximately 1/2 pint of whisky per day from age 19 to age 56. He stopped drinking completely 6 years ago. There is a past history of alcoholism as a diagnosis by several physicians.

Review of systems:

The patient has complaints about his skin as detailed in the present illness. In addition, he has been hypertensive since 1970. He takes Dyazide and Viskin for his hypertension. The past medical history is not particularly remarkable except for pneumonia as a child. He had a tonsillectomy, hernia repair in 1970 and vein stripping in 1975. He had a muscle biopsy in 1976, but the biopsy is not reported in his combined record. The precise type of muscular dystrophy is not defined. He had a fat biopsy for PCB levels in 1976 which was 5.4 ppm.

The review of systems further indicates some minimal shortness of breath and an apparent decrease in memory.

Physical Examination:

The patient was a pleasant, well developed, well nourished, white male with severe ambulatory and muscle problems. Blood pressure was 130/90; pulse 84; respirations 18; and the temperature 97.8. Examination of the head, ears, eyes, nose and throat was unremarkable. The chest was clear to

HARTOLDMON0021644

auscultation and percussion, there was no hyper resonance. There were no rales or ronchi noted. Examination of the heart revealed a regular sinus rhythm. There were no thrills, rubs or murmurs noted. The abdomen was moderately obese. The liver, spleen, and kidneys did not appear to be enlarged. Examination of the GU system revealed a normal male. The skin showed marked trophic changes on both shins with large flaky papular erythematous areas behind the right knee. The patient states that this is a lesion which has been present for many years. Neurological examination revealed the patient to be alert and oriented. The cranial nerves appeared to be generally normal. There is some question in my mind as to whether ptosis is present. There is obvious muscular weakness with a wide base gait, and an inability to stand from a seated position. There is weakness of the hip flexors and extensors. The hands are weak. There is inability to appose the thumb on the left hand, and impaired ability to appose the thumb on the right hand. The sensory examination appears to be within normal limits. No lumph nodes were enlarged.

Impression:

1) Toxic Syndrome 2° to PCB with:
    a) Proximal myopathy
    b) Chloracne
    c) Peripheral neuropathy
    d) Neurasthenic syndrome
    e) Cognitive impairment
    f) Small airways disease
    g) Probable low grade toxic hepatitis
2) Possible past history of alcohol abuse

HARTOLDMON0021645

Name: HOWARD CURTIS Date of Birth: 08-23-23

I have reviewed and considered the clinical note of Dr. Daniel T. Teitelbaum. In addition, I have noted the following history from Mr. Curtis.

This 63 year-old white man has had shoulder and hip girdle muscle weakness diagnosed as muscular dystrophy and hypertension treated with Viskin and Dyazide. He worked as a lineman and electrician early in his career. From 1959 to 1985 he worked for the Tennessee Valley Authority in the transformer and power equipment repair area as an electrician. During this time he was frequently exposed to oils containing PCB's.

He had no problem with acne as a teenager, however, during the time he worked with oils containing PCB he had many blackheads on his face. These have gradually decreased in the last five to six years. He had a cyst excised from the left cheek several years ago.

For the past sixteen years he has had intermittent pruritic lesions on the legs. These have cleared in the past when intramuscular triamcinoclone was given. He has noted changes in the color of the skin in his legs in recent years. At times this condition has been diagnosed as cloracne and as lichen planus . A biopsy done several years ago revealed chronic nonspecific dermatitis. He has had problems of swelling of his ankles, more on the right and has had a vein stripping procedure on the right leg.

For the past fifteen years he has noticed increased fragility of the skin with easy bruising. This is particularly noticed on the skin of the forearms. He also feels that he is more sensitive to sunlight and his skin burns more easily and he has some itching on his hands after exposure to sunlight. He has had intermittent flares of athlete's foot for the past twenty years.

Examination of the skin revealed mottling and wrinkling of the skin of the face, neck, and forearms. There is a 3 x 3 mm epidermal inclusion cyst in a 1 cm scar on the left cheek. There is a 5 cm linear scar on the right lower quadrant of the abdomen. This is surrounded by a 3 x 5 cm depressed slightly hyperpigmented patch. There is a 4 cm linear hyperkeratotic plaque with some excoriations on the posterior aspect of the left thigh and the left popiteal area there is a 2 x 2 cm lichenified plaque. There is edema, mottled hyperpigmentation and dilated veins of the right leg. There is thickening, whitish discoloration and subungual debris involving the nails of the right large toe and left second

and fifth toes. The soles of both feet are slightly red and scaly.

I have examined and evaluated Mr. Curtis with reference to his possible dermatologic problems. I have likewise reviewed various hospital, medical, and related records of Mr. Curtis. Also I have prepared a potassium hydroxide preparation from scale from the sole of the right foot.

Based upon my examination, the test indicated, and various portions of the records, it is my opinion that Mr. Curtis suffers from:

1. Chloracne, by history with residual epidermoid cyst -left cheek
2. Solar elastosis of the exposed skin of face, neck, and arms
3. Lichen simplex, right posterior thigh and popiteal area
4. Dermatitis of legs, probable prurigo, not present at this time
5. Stasis changes, leg, more severe on right
6. Dermatophytosis of feet and toenails

I also have considered the relevant medical and scientific literature regarding exposure to PCBs, dibenzofurans, and dibenzodioxins and certain adverse health effects associated with exposure to those chemicals. It is my further opinion that the following diagnoses are related to, i.e. caused or contributed, Mr. Curtis' previous exposure to PCBs and/or their contaminants:

1. Chloracne, by history with residual epidermoid cyst - left cheek
2. Dermatophytosis of feet and toenails

These opinions are within a reasonable degree of medical probability.

Edgar B. Smith

Edgar B. Smith, M.D.
Professor and Chairman
Department of Dermatology
University of Texas
Medical Branch
Galveston, Tx 77550

THE UNIVERSITY OF ROCHESTER
MEDICAL CENTER
300 CRITTENDEN BOULEVARD
ROCHESTER, NEW YORK 14642
AREA CODE 716
SCHOOL OF MEDICINE AND DENTISTRY · SCHOOL OF NURSING
STRONG MEMORIAL HOSPITAL

Eric D. Caine, M.D.
Associate Professor of Psychiatry and Neurology
Director, Ambulatory Services
Director, Neuropsychiatry Program
(716) 275-3571

NEUROPSYCHIATRIC EVALUATION

NAME: Howard E. Curtis
DOB: 23 August 1923

Thank you for the opportunity to evaluate Howard E. Curtis, who I assessed on 27 February 1987. In addition to examining Mr. Curtis, I reviewed and considered the clinical note of Dr. Daniel T. Teitelbaum. I have also reviewed various hospital, medical, and other related records of Mr. Curtis.

Mr. Curtis underwent a comprehensive neuropsychiatric evaluation. This evaluation included administration of the Neuropsychological Symptom Checklist (NSC), the 28-item version of the General Health Questionnaire (GHQ), the abbreviated version of the Beck Depression Inventory (BDI), the revised 90-item version of the Hopkins Symptom Checklist (SCL-90-R), and a semi-structured interview using the Schedule for Affective Disorders and Schizophrenia - Lifetime Version (SADS-L), with the Global Assessment Scale (GAS).

The NSC is a general, qualitative (non-quantitative) symptom inventory useful for preliminarily assessing patients with possible neurological, emotional, or intellectual dysfunction. The GHQ is used typically in medical, non-psychiatric settings to establish the presence of clinically prominent emotional distress. The BDI is used to establish the overall severity of depressive mental symptoms, which can be grouped as mild, moderate, or severe. The SCL-90-R is used in a variety of clinical settings, most often for defining problems in patients having behavioral or emotional symptoms. From data gathered using the SADS-L interview, it is possible to develop a standardized, rigorous lifetime psychiatric diagnosis, where applicable. The GAS is useful for establishing the overall level of current disease severity and functional impairment due to psychopathology.

Mr. Curtis was also evaluated with an array of standardized neuro-psychological tests to assess his intellectual functioning. These tests included assessments of orientation, attention/concentration, verbal and nonverbal memory, visuospatial abilities, language/reasoning, and motor/"Executive" functions.

Based upon my examination, including the tests that I have indicated, as well as Mr. Curtis's records and Dr. Teitelbaum's evaluation, it is my opinion that Mr. Curtis suffers from a marked change of personality which evolved to a neurasthenic syndrome and ultimately a full blown major depressive disorder. A residual neurasthenic state remains, as well as significant

HARTOLDMON0021648

obsessive-compulsive symptoms associated with his intellectual difficulties. Mr. Curtis's neuropsychological test results are indicative of mild central nervous sytsem damage.

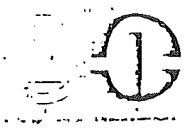
I have also considered the relevant medical and scientific literature regarding exposures to PCBs, dibenzofurans, and dibenzodioxins, and adverse health effects associated with the exposure to those chemicals. It is my opinion that the above conditions, are related to, i.e., caused or contributed to, his previous exposure to PCB's and/or their contaminants. This opinion is within a reasonable degree of medical certainty.

If you have any questions, please feel free to call me.

Eric D. Caine, MD

Eric D. Caine, M.D.
20 March 1987

RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER 1653 WEST CONGRESS PARKWAY, CHICAGO, ILLINOIS 60612



DEPARTMENT OF NEUROLOGICAL SCIENCES

19 March 1987

Thomas W. Henderson, Esquire
Henderson & Goldberg, P.C.
1030 Fifth Avenue
Pittsburgh, PA 15219

RE: Howard Curtis
Age 63

Dear Mr. Henderson:

I have reviewed and considered the clinical report of Dr. Daniel T. Teitelbaum.

I have examined and evaluated Mr. Curtis with reference to his possible neurologic problems. I have likewise reviewed various hospital, medical, and related records supplied to me by your office. I also obtained a history at the time of the neurologic examination which I performed.

Based upon my history and examination and supported by various portions of the records, it is my opinion that Mr. Curtis suffers from:

1. Postural tremor and terminal intention tremor (action tremor);
2. Action dystonia;
3. Peripheral neuropathy.
4. Neurasthenic syndrome

I also have considered the relevant medical and scientific literature regarding exposure to PCBs, dibenzofurans, and dibenzodioxins and certain adverse effects associated with exposure to those chemicals. It is my further opinion that Mr. Curtis's previous exposure to PCBs and /or their contaminants caused or contributed to all of the above diagnoses. Mr. Curtis also suffers from a proximal myopathy on which no previous specific diagnosis has been made. The contribution of his toxic exposure to this disorder would depend upon further direct evidence that these chemicals can cause such a disorder.

These opinions are within a reasonable degree of medical probability.

Sincerely,

Harold L. Klawans, M.D.
Professor, Neurology and Pharmacology

/gl

1725 W. Harrison, Suite 915, Chicago, Illinois 60612, (312) 942-5936

HARTOLDMON0021650

HARRIS BUSCH, M.D., PH.D.
PROFESSOR AND CHAIRMAN
DEPARTMENT OF PHARMACOLOGY
BAYLOR COLLEGE OF MEDICINE
TEL. (713) 790-4457
1200 MOURSUND AVENUE
HOUSTON, TEXAS 77030

EXAMINATION
Dr. Harris Busch
Dr. Frank Smith

CURTIS, Howard
March 23, 1987

Mr. Curtis is an obese white male who has bilateral edema of both legs. Although his record indicated that he had hypertension, his blood pressure was 140/90.

His main problem is weakness in both legs which clearly exhibit chronic venous stasis related in part to his prior phlebitis and phlebosclerosis for which he had a vein stripping procedure for his right leg.

He also has a small ulcer of the left leg. His muscle weakness is clearly associated with thigh muscle loss.

Mr. Curtis is age 63 presenting with a major complaint of skin rashes, recurrent acne, sensitivity of skin to light, personality changes for the past decade and a half, as well as weakness primarily in the legs beginning in the 1970's. High blood pressure was apparently diagnosed in the 1970's. By far, his major complaint is that of weakness, particularly of the legs. He has difficulty arising from chairs or getting out of bed. Apparently this weakness is generalized and he has no other neurologic symptoms.

On examination, Mr. Curtis is somewhat obese and appears his stated age. Blood pressure on examination today was 140/90, cardiac rate was 88 per minute and regular. Respiratory rate was 8 per minute and regular. There is no adenopathy. Lungs are clear to auscultation and percussion. There were no thrills, murmurs or gallops on cardiac examination. His liver was a normal size and there is no splenomegaly. The abdomen is somewhat protuberant. He has changes of chronic venous stasis on both legs and 1+ bilateral edema. Mr. Curtis is areflexic in both legs and there is bilateral quite marked leg weakness. There appears to be some subjective weakness in the upper extremities but this is less marked than in the legs. The remainder of his neurologic examination is unremarkable.

It appears that Mr. Curtis has a muscular disorder, probably muscular dystrophy, since the muscles themselves appear reasonably well developed.

HARTOLDMON0021651

Curtis, Howard

Preliminary Diagnosis

1. Muscular dystrophy, etiology unknown
2. Chronic venous stasis, with ulceration
3. Hepatocellular dysfunction, etiology unknown
4. Sociopathic behavior, when inebriated

HARTOLDMON0021652

Curtis, Howard E.
Wm 63
3-25-1987

CC:

Evaluated because of lawsuit, which he entered 3-3 1/2 years ago.

HPI:

Pt states that in the mid-1970s he began to suffer weakness in both legs, particularly around the knees. His knees would buckle under him. He was hospitalized for diagnosis and treatment at the Eliza Coffman Memorial Hospital in Florence, Alabama where a consulting neurologist diagnosed muscular dystrophy. He then remembered that he had previously fallen 4 or 5 times while on his job as an electrician foreman for TVA. Later, his arms got weak. This has gotten progressively worse: he now cannot close his hands; his fingers are weak; he states that previously he was able to lift 300-400 lbs (!), but now he has to use some sort of special stance to lift even 30 lbs or so.

In the early 1970s the pt developed a rash on both legs, on the right hip, and on both arms. He describes this as an itching rash which was made dramatically worse by rubbing, "like 10,000 ants were biting you." A dermatologist diagnosed lichen planus, and treated him with various steroids. He states that later on the diagnosis was changed, following a biopsy. He is not aware of the final diagnosis, but states that the steroids were helpful, particularly shots of Kenalog.

The pt reports that for the past 2 1/2-3 yrs he has suffered extreme watery diarrhea after eating anything unusual; not overeating, rather eating anything not in his accustomed diet. He has worried particularly about blood, but has never noticed any.

Additionally, the pt had a muscle biopsy of the left upper leg in March 1986 and a fatty tissue biopsy over the right rib area in August 1986, for the determination of tissue PCB content.

Pt has noticed that he's more "nervous" than he used to be, but this nervousness is nonspecific and has to do with getting details straight. His memory seems to be fading, but he considers this to be a function of age. As an example he states that when his wife asks him to pick something up at the store, he has to jot it down so that he can remember.

Pt married in 1942, and has had a stable marriage for the ensuing 44 years. There are 2 children, a daughter, 40, who is married with 2 children; and a son, 39, who has an MS in Chemistry and works for TVA. The pt feels quite fortunate to have both children living in his neighborhood.

The pt's hobbies have been golf and fishing.

Work Hx:

This pt's work history is quite detailed. Initially he sought jobs that would allow him to play ball, working as a salesman from 1946-48 and as an electrician trainee from 1948-49. From 1949-1952 he worked for the Sheffield Power Co. During the period 1952-59 his work hx shows one or even two job changes per year, always as an electrician: he worked for the city of Florence; for the AEC in Paducah, Kentucky; the Boawater Paper Mill, Cleveland, Tennessee; for GE in Louisville, Kentucky; for TVA in the Tri-city area; in Kansas City; in Chicago; and again in the Tri-cities. In 1959 he went to work for the TVA, where he remained for 26 years, retiring in March, 1986.

Habits:
Pt smoked 1-5 cigars per day for the period 1945-1980. Alcohol: pt states that he never drank heavily, defined as 3-4 beers or 1/2 pint of whiskey per week, and accept for an isolated occasion he has been totally alcohol free since 1980. But associated with the drinking there have been 4 episodes of thievery. He reports that in 1954 he stole a trumpet from a Rogersville, Tennessee department store, plea bargained for a reduction of the charge to a misdemeanor and received one year probation; in 1969, stole a rifle in Florence, Alabama, again reduced to a misdemeanor, and fined; in 1982 stole an electric sander from Sears in Florence, charged with a misdemeanor, fined; in June, 1986, stole a pint of whiskey from a package store and was given a 30-day suspended sentence, with a fine. He is firm in stating that each of these episodes occurred under the influence of alcohol and that he cannot otherwise explain the dynamics. In 1980 he was converted and was quite relieved that the Lord was now with him and would help him with his problem, and was successful except for the June, 1986 episode, "just that one day I drank 2-3 drinks."

Hospitalizations:

Pt was hospitalized in 1975 for umbilical hernia repair; in 1978, for vein stripping, following thrombophlebitis of the right leg; 1980, colon polyp removed, benign; 3-1986, muscle biopsy left upper leg; 8-1986, fatty tissue biopsy over the right rib area, the latter 2 for determination of tissue PCB level.

HARTOLDMON0021654

Medications:

Visken, 10 mg daily, Dyazide, daily, for hypertension. Pt takes no other medications.

ROS:

In addition to HPI, the pt states that he has had a chronic rash on the posterior aspect of his right knee since 1970. Hypertensive since 1970.

MS Exam:

Mr. Curtis is a well developed, slightly obese male who walkes with a cane. He entered into the interview situation readily and comfortably. His speech was clear, not impaired in any way. In giving his history he tended to be somewhat repetitive, and seemed to enjoy shifting in his chair, getting set and answering the question with the beginning phrase, "I never will forget." There was no abnormality of mood of affect, nor was there any incongruity. There was no evidence of depression or of anxiety, nor was there any thought disorder. Orientation, memory, recall, attention, judgment and insight, and abstracting ability were all within normal limits.

In Summation:

There was not enough evidence of emotional aberration in this patient to justify a formal psychiatric diagnosis, in any sphere. There was no depression, no anxiety, nor was there any thought disorder. Orientation, memory, recall, attention, judgment and insight, and abstracting ability were all within normal limits. That is, there was no sign of organic brain syndrome.

There was one period during the interview when the pt appeared sad, however. It was when he was describing his 4 (known) episodes of stealing; one episode each at age 31, 46, 59, and 63. He essentially denied personal responsibility for these actions, stating that each occurrence was under the influence of alcohol, that he "asked God to help" him, and thought the problem was solved except for that "one day" in 1986 when he had 2-3 drinks and stole again. There are several possibilities to explain this type of behavior and denial: lack of adequate superego development, antisocial or antiauthoritarian acting out, or simple thievery. Individuals such as this tend to extract from society whatever they can get. His guilt and

HARTOLDMON0021655

contrition argue against antisocial personality disorder. Psychological testing may well provide additional data.

Impression:

No psychiatric diagnosis

HARTOLDMON0021656

SPECIMEN DATE 23MAR87
WEEKDAY/DAY OF STAY MON 1
TIME 1231HRS

CHEMISTRY

REFERENCE RANGE		TEST	
-- ELECTROLYTE/PROFILE CHEMISTRIES --			
8-	24 MG/DL	BUN	25H
0.5-	1.5 MG/DL	CREATININE	1.0
65-	110 MG/DL	GLUCOSE	126H
4.0-	9.0 MG/DL	URIC ACID	9.2H
8.7-	10.7 MG/DL	CALCIUM	10.2
2.5-	4.5 MG/DL	PHOSPHORUS	4.0
6.0-	8.4 G/DL	TOTAL PROTEIN	7.8
3.5-	5.1 MG/DL	ALBUMIN	4.6
0.2-	1.2 MG/DL	TOTAL BILIRUBIN	0.5
30-	115 U/L	ALK PHOS	104
5-	40 U/L	ALT (SGPT)	65H
5-	35 U/L	AST (SGOT)	50H
75-	200 U/L	LD	286H

* = VALUE OUTSIDE REFERENCE RANGE
# = RESULT CORRECTION

The Methodist Hospital
Department of Pathology
Houston, Texas 77030

Cumulative Pathology Report

00082

Cumulative Report

HARTOLDMON0021657

SPECIMEN DATE	23MAR87
WEEKDAY/DAY OF STAY	MON 1
TIME	1231HRS

HEMATOLOGY

REFERENCE RANGE		TEST		
-------- BLOOD CELL PROFILE --------				
4.5-	11.0 K/UL		WBC	7.4
4.40-	6.00 M/UL		RBC	4.61
11.0-	18.0 G/DL		HGB	14.2
41.0-	51.0 %		HCT	41.9
82.0-	100.0 FL		MCV	90.9
27.0-	34.0 PG		MCH	30.8
32.0-	36.0 %		MCHC	33.9
150-	400 K/UL		PLATELET	292
----- BLOOD SMEAR PERCENT DIFF -----				
35-	65 %		SEGS	59
0-	11 %		BANDS	1
25-	45 %		LYMPHS	25
0-	10 %		MONO	12H
0-	3 %		EOS	3
------ BLOOD SMEAR MORPHOLOGY ------				
		PLT ESTIMATE		ADEQUATE

* = VALUE OUTSIDE REFERENCE RANGE
# = RESULT CORRECTION

Methodist

The Methodist Hospital
Department of Pathology
Houston, Texas 77030

Cumulative Pathol Report

Cumulative Report

00083

BEN COOPER, M.D., P.A.
NEUROLOGICAL CONSULTATION

6560 FANNIN, SUITE 1426
HOUSTON, TEXAS 77030

(713) 797-1180

April 1, 1987

RE: HOWARD E. CURTIS, JR.

TO WHOM IT MAY CONCERN:

Mr. Howard Curtis was interviewed and examined by myself on March 23, 1987. A detailed history was taken and a full physical examination was carried out. In summary, this 63 year old man on examination was found to have visual acuity of 20/25 in each eye. The discs were flat. His pupils were equal and reacted to light and accommodation and he had normal eye movement. There was no loss of sensation on his face. He did have bilateral facial weakness with marked weakness of the orbicularis oculus muscles bilaterally. There was also weakness of his lower face with a straight smile. The remainder of the cranial nerve examination was normal.

With regard to the motor examination, the development showed wasting of his quadriceps and hamstring muscles bilaterally. There was also wasting of the distal third of his forearms. He did have very large calves. He had weakness of forward flexion of his neck. He had moderately severe weakness of both deltoid muscles. He had marked weakness of both triceps and also of his biceps muscles. He had weakness of the long flexors of the forearm, He had marked weakness of both iliopsoas and quadriceps muscles. There was weakness of the anterior tibial and posterior tibial muscles. He had absent brachioradialis muscles bilaterally. All his reflexes were absent. The sensory examination revealed that he had normal appreciation to pin prick throughout. Joint sensation position was normal throughout and there was diminished appreciation of vibration sense in both his hands and his feet.

It was my impression that this man suffered from a Myopathy and my feeling was that this is due to a muscular dystrophy in that he had involvement of his facial muscles. In addition, he had clear absence of brachioradialis muscles bilaterally which occurs mainly in people who suffer from a dystrophy. He had absent reflexes. There was some suggestion of a sensory neuropathy in that vibration sense was diminished in this man. I had told the patient of my findings and I had suggested to him that he required a nerve and muscle biopsy and electromyography to be done in a clinic that specilizes in primary muscle disorders.

Thank you for allowing me to share in this gentleman's care.

Sincerely,

Ben Cooper

Ben Cooper, M.D

BC:jb

HARTOLDMON0021660

BEN COOPER, M.D., P.A.
NEUROLOGICAL CONSULTATION
6560 FANNIN, SUITE 1426
HOUSTON, TEXAS 77030
TELEPHONE (713) 797-1180

6560 FANNIN, SUITE 1426
HOUSTON, TEXAS 77030
(713) 797-1180

DOB: 8-23-23 CURTIS, JR. HOWARD E.
AGE: 63
3-23-87

Main Comp : 1) Weakness in general mostly in legs - 1972, this became worse over a period of 13 years

2) Difficulty in closing his hands 6-7 months

3) Drowsiness - 3-4 years.
4) Rash on legs - since 1970.

Past Medical History

1) Usual childhood ailments.
2) T & A in 1944
3) Umbilical hernia op in 1975 - B & T.R. Brown Florence Meds.
4) In 1978 vein stripping on Rt leg.
5) March 1986 had muscle biopsy (L) thigh. E.C.H. hospital - was told he had a muscular dystrophy.
6)

Family 1) Married - 1 daughter 40
- 1 son 34 Both in good health.

00086

HARTOLDMON0021661

2) 4 brothers 61
59
55 → all in good health.
53 poker player

3) M - dead aged - 73 - ? M.I.

F - dead aged - 75 - M.I.

No family history of high blood pressure, strokes, or any neurological disease.

SYSTEMIC He does not think he is in good health. Weight is stationary at 205 lbs Appetite is good. No abdominal pain. No N/V. For the past 4 years has had diarrhoea, has found that certain foods e.g. steak dinner - fish - highly seasoned food will have diarrhoea, loose stool - no mucous, nil is blood in the stool - happens about once a week. No pain. In 1970 BP was 150/90. was treated in army
No cough, shortness of breath, no chest pain.
No change in bowel action
Allergies: 1) Nil. - no food allergies.
Meds 1) Visken 10 mgs - since 1986.
2)

Smoker: Nil
Alcohol: Stopped in 1980. Was using ½ pint once a week, bourbon.

HARTOLDMON0021662

BEN COOPER, M.D., P.A.
NEUROLOGICAL CONSULTATION
6560 FANNIN, SUITE 1426
HOUSTON, TEXAS 77030
TELEPHONE (713) 797-1180

6560 FANNIN, SUITE 1426
HOUSTON, TEXAS 77030
(713) 797-1180

3-23-87 AGE: 63 CURTIS, JR. HOWARD E.

Main Comp In 1973 first saw his doctor in 1970 for a rash on Rt rip and leg - rash was very itchy - appeared as a hard crust - did not bleed, also developed 2 bumps on his ~~B~~ (L) leg. First doctor placed him on medic - lichen planus, medic was an ointment - then saw a second dermatologist - had a biopsy made - told it was not lichen planus. Third ~~doctor~~ doctor - a general practitioner - gave an injection of kennalog - this relieved the itch - These lesions began to disappear - in 1978 - simultaneously developed a large lesion behind the Rt knee.

In 1972 was taking a step back - his Rt leg folded under him and he fell. He was immediately able to get up and go on about his business. Between 1972 & 1980 his legs tended to buckle - happened 2-3 times, he would suddenly fall to the ground, would not even have a chance to catch himself. He had in 1975 begun to use a handrail to help himself upsteps, ~~[illegible]~~ ~~[illegible]~~ His legs began to feel tired and heavy. In 1976 there was more folding of his legs.

By 1980 his legs were feeling more frequently-
happened like a numb. In 1980 - 1981 he could
walk a couple of miles exercising with his wife.
In 1981 he quit walking because he became extremely
tired - in 1981 his was at an art display at
a high school - was walking in the parking lot -
his knees buckled and he fell & dislocated his Rt knee.
He learned that in stepping down from a curb -
could step down with his foot turned, this would
prevent him from falling. By 1981 had to push up
on the arms of a chair. 1980-1981 not sure, learned
he could not pick 50 lbs of fertilizer out of the trunk
of his car. In 1981 walking down a path - his (L)
knee buckled and he saw his (L) trouser leg & dislocated
his knee.
His walking gradually deteriorated - first used
a walking stick in 1985 - did not use it on
the job. After 1981 learned that walking on
uneven ground was difficult for him. Learned that
if he sat for a long time after 1981 learned that
his legs and feet felt numb.
By Jan 1986 was using his walking stick all the
time - stepped out on the back steps of his
house - his legs gave way he fell - the glass
he was carrying shattered & cut his (L) 5th finger

HARTOLDMON0021664

BEN COOPER, M.D., P.A.
NEUROLOGICAL CONSULTATION
6560 FANNIN, SUITE 1426
HOUSTON, TEXAS 77030
TELEPHONE (713) 797-1180

6560 FANNIN, SUITE 1426
HOUSTON, TEXAS 77030
(713) 797-1180

In 1981 he noted that the muscles in his thighs were disappearing - this was gradual in onset and progressively became worse.
By 1985 the wasting was clearly apparent.
Following the fall down the concrete steps at his home Jan 1986 - saw a Dr M Mitchell - was sent for an EMG - was told he needed a muscle biopsy March 1986 - He returned in March 1986.
He feels he steadily became weaker in 1986 -
If he takes his time he can walk 2-3 blocks. He avoids steps uses the inclines for people in wheelchairs.
There has been no change in his vision - he began to use bifocals in 1977-78. Hearing is good.

His exposure to P.C.B was in repairing rectified transformers - these are filled with P.C.B oil.
His exposure to this was from 1959. He would take the oil out of the transformer

Unable to close his hands in last 6-7 months. Has difficulty in using his shoelaces - doing a button is difficult.

00090

Neuro Exam

Skull ✓ Cervical Spine ✓ Speech ✓

Rt handed.

Cranial Nerves

I ✓ II V.A.R 20/25 Discs are flat.
V.A.L 20/25

III IV VI Pupils ✓ E.O.M ✓ V ✓ VII Bilateral facial weakness
Weakness orbic oculis bilat
Weak of lower face straight smile.

VIII ✓ IX X ✓ XI ✓ XII ✓

Motor Ster Develop Marked wasting of quadriceps also wasting of fore arms hamstrings. He has large calves

Power 1) Weak forward flexion of neck
2) Weak back deltoid 3/5
3) Marked weakness of back triceps 2/5 also of biceps 3/5 hung flexion weak but are there is sorness of lunction - difficult in dressing in hands
4) Marked weakness of back iliopsoas & quadriceps muscles, 2/5
Weakness cut lit & post tibials
5) Absent brachioradialis muscles bilat.

Reflexes absent

Sensation Pinprick : Normal thro' out.
I.P.S : Normal
Vibration : Diminished in hands / feet.

B.P. 120/80 - Myopathy - may be

Imp : 1) Muscular Dystrophy
Limb Girdle Type
2) Sensory neuropathy

00091

HARTOLDMON0021666