in right arm. Electric irritability normal. Peculiar disturbance of speech. The patient avoids speaking as much as possible; she talks slowly and carefully. She puts in wrong letters, or leaves out a letter, or mistakes one letter for another. In pronouncing repeatedly the same word, she learns to avoid the mistakes. She is easily fatigued by talking, and then makes more mistakes than in the beginning. Occasionally fits of tonic spasm on the right side are observed. They always begin in the right leg by a sensation of tingling, which ascends to the right arm, and is followed by tonic spasm of the inner three fingers of the hand, index and thumb remaining extended. When this is over, a similar sensation takes place in the right cheek, followed by a tonic contraction of the inferior muscles of the right side of face. Compression of the blood-vessels and nerves of right arm have no influence on these spasms. Clonic contractions never took place. By degrees the patient got better, and four months after her reception at the hospital (May 1879) she was dismissed perfectly cured, and remained so to this day. The only anomaly to be observed now is a certain cautiousness in speaking and a very slight want of innervation in the right facial nerve. The disturbance of speech is characterised by the author as "literal ataxy;" just as in locomotor ataxy the movements are disturbed by involuntary movements interfering with those that are intended by the patient; in this case letters which were not wanted for the formation of words were put in irregularly, and prevented the formation of normal words. The tonic spasms were symptomatically exactly like those of tetanus; they differed essentially from the usual epileptiform clonic spasms which are commonly noticed in cortical lesions.

Dr. Strümpell considers the case as one of curable encephalitis in the motor region, more particularly in the region of the middle and lower third of the ascending frontal and parietal convolutions, which has been shown by Ferrier to be the centre of the movements in question.

R. H. PIERSON, M.D.

Straus on Tabetic Ecchymoses.—Straus (*Archives de Neurologie*, No. 4, 1881) describes another form of cutaneous eruption succeeding the lightning pains of ataxy, in addition to the papular, pustular, herpetic, &c., eruptions described by Charcot and Vulpian. These consist in veritable ecchymoses, which appear in a certain number of ataxics after the cessation of a violent accession of pains, sometimes not showing themselves for several hours. The appear-

ance and course which they pursue correspond entirely with the extravasations resulting from injury, and were at first supposed by the author to be really due to mechanical injury, but which he found on careful and repeated examination not to be the case. The spontaneous nature of the ecchymoses was clearly proved. The patches are irregular in shape and size, and also variable in number. The intensity of the discolouration is generally proportional to the duration and violence of the pain. They almost always occupy the member, or part of it, which has been the chief seat of pain, and may be unilateral or bilateral accordingly. Generally the ecchymoses occur at a higher level than the actual seat of pain; in the leg, if the ankle has been specially attacked, and in the upper arm, if the elbow has been the seat of the pain.

The distribution of the patches does not correspond with the course of the cutaneous nerves like the tabetic eruptions described by Charcot. Sometimes, but exceptionally, the ecchymoses are confined to one limb, and it may happen that they appear not in the limb which has been the seat of pain, but in the opposite. No particular period in the course of the disease can be fixed at which they occur. Nor can they be said to be very common.

As to their mode of causation, mechanical injury being excluded, two hypotheses may be entertained. According to the one most in harmony with established data, the ecchymoses may be looked upon as the result of local vascular dilatation, either active vaso-dilatation or passive vaso-paralysis, caused reflexly by irritation of the posterior radicular zones acting on the anterior roots. The other hypothesis is that the ecchymoses are due to direct irritation of vaso-dilator fibres contained in the posterior roots. Most physiologists hold that the vaso-motor nerves pass out by the anterior roots, but the experiments of Brown-Séquard seem to indicate that the posterior roots also contain vaso-motor fibres. More recently, Stricker has published experiments which he holds demonstrate the existence of vaso-dilator fibres in the posterior roots of the sciatic in the dog. This view has been contested by Cossy and Vulpian, but again affirmed by Stricker. If Stricker's view is correct, then the ecchymoses would find an explanation in the direct irritation of vaso-dilator nerves of the posterior roots by the active process on which the lightning pains depend.

Debove on Tabetic Arthropathies.—Debove (*Archives de Neurologie*, No. 5, 1881), in remarking on a case of tabetic arthropathy,

calls attention to the multiplicity and symmetry which these affections exhibit in the individuals attacked. In his case the left elbow and both shoulders were affected—the arthropathy of the right shoulder showing itself first after a mechanical injury.

The liquid removed by puncture corresponded in all its characters with synovial fluid. Charcot and other observers have noted the suddenness with which the swelling of the joint and its neighbourhood occurs, and this, according to Debove, is the result of the escape and infiltration of the cellular tissue by the synovial fluid, which causes swelling and enlargement of the superficial veins by pressure on the deeper ones. The extent of the swelling is conditioned by the arrangement of the cellular tissue and fasciæ.

As to the mode in which the articular fluid escapes, it is not the result of arthritis and slow distension, but more probably the rupture and inflammation are simultaneous.

Owing to this rupture and absence of distension in the joint, is due, in part at least, the freedom from pain which is so characteristic of this form of arthropathy. As to how the rupture occurs, it does not seem due to direct rupture of the capsule, as affections of the ligamentous tissues are not characteristic of ataxy. The author believes that it can be most satisfactorily accounted for by the same degeneration of the osseous tissue which leads to the spontaneous fractures of tabetics. This, occurring at the attachments of the capsular ligaments, would lead to the escape of the synovial fluid and the resulting tumefaction. An examination of the joints in tabetic arthropathy also supports this view, as the lesions of the articular surfaces are often unequal. In true arthritis the whole articular surface is involved in the inflammatory process.

D. FERRIER.