662 Nonmyeloablative Allogeneic Stem Cell Transplantation with/ or without ^{90}yttrium Ibritumomab Tiuxetan (^{90}YIT) Is Curative for Relapsed Follicular Lymphoma: Median 9 Year Follow-up Results

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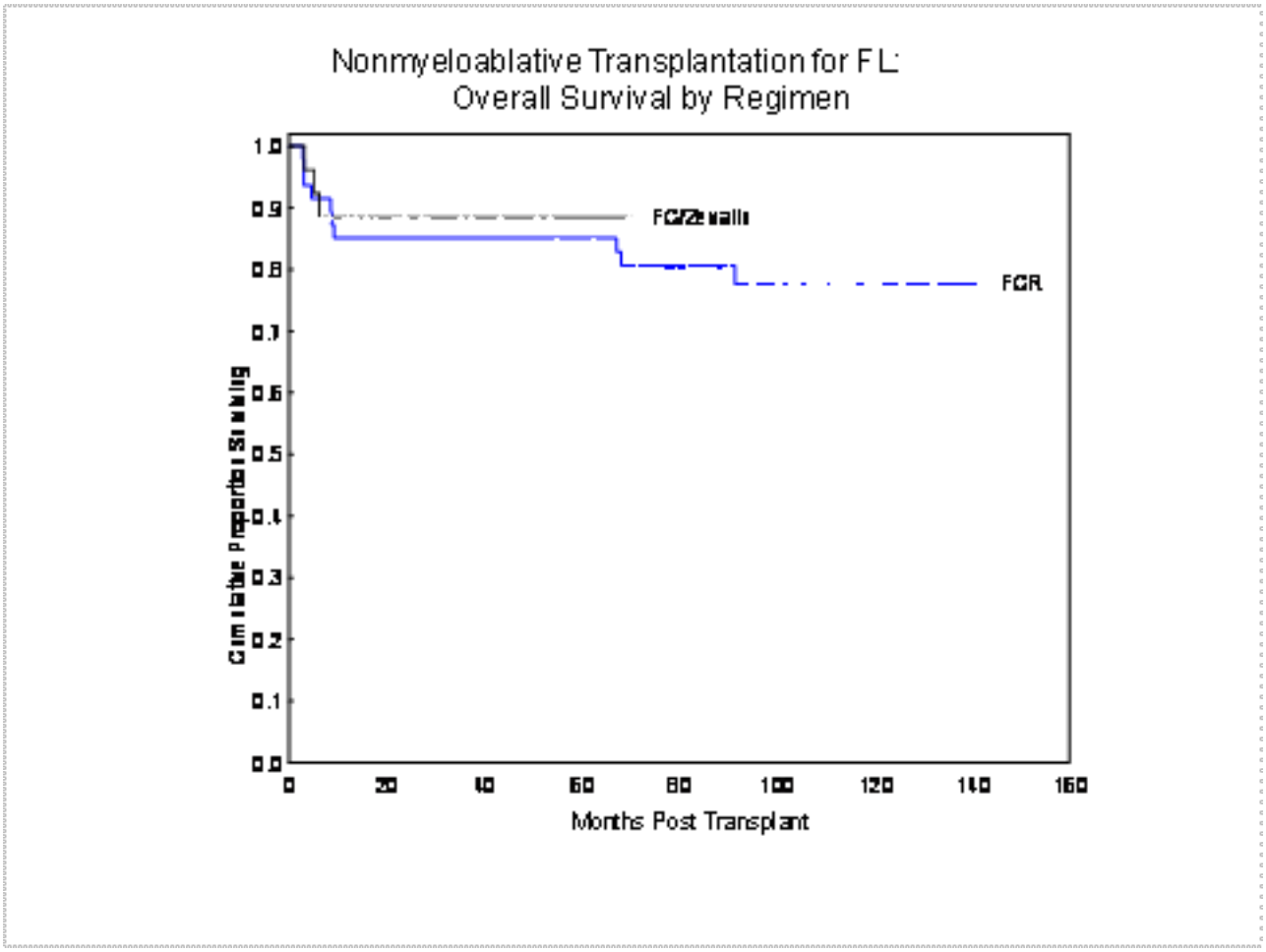
Purpose: Fludarabine, cyclophosphamide ,and rituximab (FCR) has been found to be an effective nonmyeloablative allogeneic conditioning for relapsed/chemosensitive follicular lymphoma (Khouri et al, Blood 2008;111:5530). Innovative strategies were needed to treat patients with refractory disease. To achieve this goal, we added in a subsequent trial ^{90}YIT

to the conditioning (^{90}YIT-FC). We now report updated results of the FCR trial (n=47 pts), and outcomes after ^{90}YIT-FC (n=26 pts). **Methods:** FCR regimen: Fludarabine (30mg/m^2) and cyclophosphamide(750mg/m^2) were each given daily for 3 days (-5 to -3) before transplantation. Rituximab was given at a dose of 375 mg/m^2 on day –13 and 1000 mg/m^2 on days -6, +1, and +8, as previously described. ^{90}YIT-FC: A diagnostic dose of ^{111}In-ibritumomab was administered on day-14, followed by a fixed dose of 0.4 mCi/kg ^{90}YIT on day -7. FC chemo was then administered at the same dose and schedule (days -5 to -3) as described above. Tacrolimus and methotrexate was used for GVHD prophylaxis. In addition, thymoglobulin of 1 mg/kg was given on days -2, -1 in pts receiving an unrelated or HLA-mismatched donor. **Results: A. Transplant with FCR.** Median age was 53 years (range, 33-68) years. Median prior treatments was 3 (range, 2-7). At transplant, 96% had chemosensitive disease (38% CR, 62% PR); 15% were PET+; and 53% had IPI = 0. Forty five pts (96%) had a transplant from a matched sibling donor, and 2 from unrelated ones. Since the last update (Blood 2008), one pt had recurrent disease (responded to donor lymphocytes + rituximab); three deaths occurred while pts were in CR: one because of pancreatic cancer (with strong family history), one of infection, and one of unknown causes. With a median follow-up time of 107 months (range, 72-142), the OS and PFS rates at 10-year were 78% (95%CI, 62-87) and 72% (95% CI, 56-83), respectively. Lymphoma-free OS and PFS rates were 82% and 76%, respectively. **B. Transplant with ^{90}YIT-FC**. Compared to the FCR group, more pts within this group had refractory disease (non-responding or progressing with chemo-immunotherapy) at transplant (38% vs 4%, respectively, p<0.001), were PET+ {44% vs 15%, respectively, p=0.01; (expert review by H.A.M)}, and more had a matched unrelated or mismatched transplant (43% vs 4%, respectively, p <0.001). Other characteristics such as age, number of prior chemotherapy regimens, time from diagnosis to transplant, were not significantly different between the two groups. With a median follow-up of 23 months (range, 7-70), the 2-year OS and PFS rates were 88% and 85%, respectively, not statistically different from the 2-year OS and PFS of the FCR group (83% and 85%, respectively) (p=0.9) (Figure). The 2-year PFS rates for pts with refractory and sensitive disease were 80% and 87%, respectively (p=0.7). Findings after the ^{111}In-ibritumomab scans (40% were positive) did not impact outcomes. The incidence of acute II-IV GVHD was 13% in FCR- and 23% in the ^{90}YIT-FC group (p=0.2); the rates of acute III-IV GVHD were 2% and 8%, respectively; p= 0.3. We noticed an unexpected trend for a lower incidence of chronic extensive GVHD in the ^{90}YIT-FC group (24% vs 40%, respectively, p=0.3), despite the higher proportion of unrelated transplants in that group. **Conclusions:** Nonmyeloablative allogeneic transplant can induce complete responses lasting over a decade in the majority of patients with relapsed follicular

lymphoma. The addition ^{90}YIT to the regimen appears to be particularly effective in relapsed refractory patients.



Disclosures: No relevant conflicts of interest to declare.